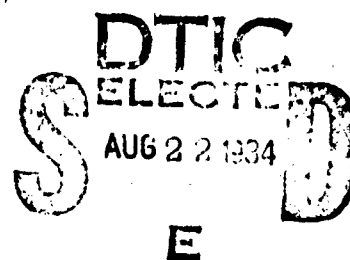


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FOLLOW-ON STUDY OF  
FAMILY FACTORS CRITICAL  
TO THE  
RETENTION OF NAVAL PERSONNEL

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FOLLOW-ON STUDY OF  
FAMILY FACTORS CRITICAL  
TO THE  
RETENTION OF NAVAL PERSONNEL

February 14, 1984

Submitted to:

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## PREFACE

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Finally, the authors wish to express thanks to the thousands of Navy men and women who participated in the original survey, giving of their time with no thought of recompense or recognition. We dedicate this report to all Navy families.



## PROLOGUE

This report presents the results of the second of two studies focusing on "Family Factors Critical to the Retention of Navy Personnel." The first study (Szoc, 1982) reported the results of a 338-item questionnaire sent to a sample of Navy personnel with primary dependents who were within 6 months or less of deciding whether or not to re-enlist or extend their existing service requirement. The key variable of the first study was retention intent: the expression of a desire on the part of the respondents to stay in or leave the Navy.

The main variable of interest in this study is the retention behavior of those same participants, as evidenced by data culled from official Navy records. As such, it represents a longitudinal follow-up of those respondents.

In order to keep this report relatively self-contained and to free the reader from the need to continually refer to sections of the first study's report, the sections presenting the background and the survey methodology are repeated here with some minor updating. The results section, since it focusses on retention behavior, rather than retention intent, presents data not previously reported.



## INTRODUCTION

### Problem

The retention of qualified personnel within the military has been an issue of national concern, receiving front page attention in national magazines and newspapers across the country. It has been the subject of Congressional hearings and public debate and has been designated a priority by the Chief of Naval Operations. The Navy, as well as other branches of the Armed Services, has encountered difficulties in retaining adequate numbers of qualified personnel. These difficulties extend beyond first term service members, where re-enlistment rates are traditionally low, to include second term and mid-career officers and NCO's. The costs of recruiting and training replacement personnel at this more advanced level are very high in terms of fiscal expenditures and readiness for battle.

Concomitant with the rising concern over retention, the Navy has been increasingly concerned about the effects of recent trends in the structure of the family. The Navy family has traditionally been faced with certain unique problems related to the Navy's mission. Frequent relocations, family separations due to deployment and temporary duty assignments, and social and cultural isolation have traditionally placed strains on Navy family life. The dramatic rise in the number

of married individuals in the Navy coupled with societal trends have served to focus attention on the quality of Navy family life and its potential implications for the Navy's ability to retain personnel.

In the Road Map for Navy Family Research, (Westinghouse, 1980) family issues critical to retention were identified as a research priority for a number of reasons:

- o There was a lack of information about family issues and retention and a need for more systematic gathering and dissemination of available knowledge.
- o Other studies had suggested that family factors play a highly significant role in influencing career intentions and decisions.
- o The nature of the relationship between family factors and retention was not completely understood.
- o Information on specific factors was needed by policy makers and program planners who are responsible for the development of policies and services that have the greatest likelihood of affecting retention.

The two broad goals of the study on "Family Factors Critical to the Retention of Navy Personnel" were:

- o The synthesis of existing knowledge about the causal relationship between family factors and retention.
- o The generation of new knowledge about the manner in which specific factors affect re-enlistment decisions and suggest changes in Navy policy and services that would affect retention decisions.

The objectives by which the study goals were achieved included:

- o The determination of the extent to which family-related factors play a role in the decision to leave the Navy for enlisted men and for officers.
- o The determination of the characteristics of those service members who leave for family-related reasons.
- o The determination of what issues led to the decision to leave for those service members for whom family issues are important.
- o The suggestion of the types of policy changes or supports which might encourage service members to remain in the Navy.

The research reported here constitutes a natural extension and elaboration of the prior study. Where the first "Family Factors Critical to Retention" examined a host of variables and their relationships to retention intent, this study focuses on retention behavior. The goals of this research include:

- o The examination of the extent to which retention behavior corresponds to intent.
- o The investigation of the extent to which family and service variables predict behavior, intention, and their concordance.
- o The elaboration and further specification of the causal model developed during the first study.

In order to make this report a self-contained document, portions of text and data tables from the first report have been included for comparison purposes.

### Background

While the issue of retention in the private sector (e.g., employee turnover) has been studied since the turn of the century (see Steers and Mowday, 1979, for a review), it has



been only recently that studies of military retention have been reported. The issue of family factors and retention of military personnel is more recent still. Most of the studies reviewed here dealt with samples of Navy personnel, although other military branches are represented. The nature of the populations studied ranged across gender, included civilian and military spouses, and covered first term, second term, and mid-career personnel. What follows is a brief summary of each of those studies.

Attrition and Retention. A number of studies can be categorized as "retention only studies" in that no family factors were examined, or only examined cursorily (Cook, Novaco, and Sarason, 1980; Landau and Farkas, 1978; Lund, 1978; Stoloff, Lockman, Allbritton, McKinley, 1972; Trejo, 1978). However, apart from demographics, these studies did not examine the same variables. For example, Cook, et al (1980) found Locus of Control (LOC) to be highly associated with attrition rates in Marine recruits: those with external LOC having higher attrition rates than those with internal LOC. They also found a pre-post shift in Locus of Control, depending on whether the respondents' particular military unit was a high or a low attrition unit. They concluded that the environment, cognition, and behavior interact in a dynamic manner to affect attrition. Landau and Farkas (1978) found that both attrites and non-attrites rank-ordered enlistment motivations similarly, but that attrites were more influenced by situational factors; a finding that is consonant with that of Cook, et al, (1978) with regard to Locus of Control.

In another vein, Stoloff, et al., (1972), in a study of retention of Naval enlisted men on sea duty, found the major correlates of retention to be satisfaction with Navy life, enlistment motivation, training, marital status, socio-economic class, seniority and performance, and some family variables. Similarly, Lund (1978) found that, for Army Junior Grade officers, job-related and benefit-related factors were associated with high retention rates. He also found a large concordance between an officer's stated intent to leave and his wife's attitude with regard to that decision. Finally, Trejo (1978) found a number of factors contributing to attrition: low pay, inadequate housing, erosion of benefits, job dissatisfaction, intellectual stagnation, and the accruing of minor irritants to major levels.

Taken together, the above studies suggest that while some attrition may be associated with certain personological variables (e.g., Locus of Control), a good portion of dissatisfaction may be attributed to those factors inhibiting a perception of the military as a good career choice. These factors include direct job-related variables, such as job dissatisfaction, as well as career-related factors, such as inadequate professional advancement and use of personal skills.

Women and the Military. Studies within this group can be divided into two types: those dealing with female enlistees, and those dealing with wives of enlisted men. A provocative topic, illustrated by studies such as that of Borack (1978), is

the impact of the Women's Movement on female role perceptions and preferences and the secondary impact on the choice of the military as a desirable career. Borack found that women who would consider enlisting in the Navy under its current organization and set of policies would not consider that action if the policies were changed. Similarly, those women who perceive the Navy as continuing gender stereotyping would consider enlisting if those gender stereotyping tendencies (perceived or real) diminished. In other words, current Navy policies such as restricting the role of women to non-combat positions are positive factors affecting enlistment among some women. For other women, changes in Navy policies to allow for such things as female combat positions and deployments would positively affect enlistment.

Two studies (Hoiberg, 1979; Thomas, 1977) present a conflicting set of findings in one regard. Hoiberg, in a secondary analysis of hospitalization records, found that most Navy women were in traditional (i.e., historically female dominated) occupations. Thomas (1977) studied a number of variables to examine the Navy as an occupational choice using men and women in her sample. She found that both men and women had similar motivations in enlisting: to make something of their lives. Additionally, she found that most women avored traditional work roles (e.g., clerical rather than mechanical). She speculated that, since many Navy jobs are not traditional and more women are needed in these areas, female enlistees would experience some dissonance that may lead to job dissatisfaction. Thomas' results do

fortify the results of Borack in that the traditional role oriented women appear to be the ones who are enlisting in the Navy.

Wilcove, et al, (1979) examined those pre-enlistment variables predictive of female enlistee attrition. They found 38 of their questionnaire items highly predictive of attrition including mental health, occupational needs, socializing and dating behavior, job satisfaction and intention to marry.

These studies indicate that, by and large, females enlist in the Navy for the same reasons males do and tend to have traditional role preferences; their attrition rates also seem to be affected by the same sets of variables as the ones applicable to male enlistees.

Navy Wives and Navy Families. Navy wives form a conceptually different subgroup than female enlistees. Although they are not enlisted members of the Navy, they are subject to formal Navy policies and procedures as well as to informal norms from other Navy wives. The literature seems to indicate that Navy wives do have an influence on their husbands re-enlistment decisions.

Grace, et al, (1976) studied a sample of 584 Navy wives with an instrument covering the following content areas: demographics, retention/re-enlistment, career counseling, work environment, organizational climate, personal factors, and

information utilization. Due to the richness of this study, it is difficult to briefly summarize here. One of the main findings was that almost all wives thought of themselves as being able to influence their husbands re-enlistment decision. (See also Thomas & Durning, 1980, and McGrath, 1977.) The implicit relationship posited by Grace, et al, was that the wife influences the husband, and that factors which influence the wife (e.g., housing, extent of social services) would thus indirectly affect the re-enlistment decision. (On the other hand, Thomas and Durning, 1980, found that wives would not use their influence in this manner.) The husband would, in addition, be influenced directly by those factors found to be salient for retention in general.

In a related study Grace and Steiner (1978) found a number of factors affecting Navy wives favorableness to their husband's re-enlistment including: wives' satisfaction with their present job, favorableness to Navy's re-enlistment programs, favorableness to Navy rules and regulations, wives' expectations about Navy life, the national economic conditions, the wives being proud of being associated with the Navy, and lack of sea-duty for women. Thus it seems that civilian wives are affected by the same factors as their enlisted husbands.

The nature of the Navy's mission almost demands that separations will occur between spouses, making the study of the dynamics of such separations interesting in its own right.

From a policy oriented perspective, the Navy resources available to separated wives and the utilization of these resources is extremely important. Decker (1977) studied Navy wives, whose husbands were currently deployed, with regard to their child care concerns, their home management, their personal need satisfaction, their emotional makeup, and general knowledge of Navy resources. A number of interesting findings emerged. First of all, she found that coping with separation becomes more difficult with increased frequency of deployment rather than less. Wives' self perception about their ability to cope with problems appeared to be related to pay grade, age, and residence in a civilian community. Coping with problems of personal need satisfaction was related to age, number of years as a Navy wife and pay grade. When wives seek help during separation, they tap informal caretaking resources first. It is not certain whether this is due to personal preference or whether it is due to a limited knowledge of Naval resources available. This study illustrates the extreme strain that is placed on a family through separation.

Taking a "career-cycle" approach Derr (1979) examined a number of factors as they relate to stages of an officer's career, especially the influence of the wife. In the early career, the fundamental coping issue is that of accepting the Navy as a way of life with the separation and long hours involved. Family issues become more acute at mid-career, with more demands

being placed on the whole family to contribute to career advancement. The late career phase is dominated by a need for stability, by growing into an executive role, and by aging.

Within the context of a path analytic like framework, Woelfel and Savell (1978) examined a number of factors. Among their many findings was that marriage satisfaction was not significantly related to job satisfaction, and that job satisfaction was the single most important factor determining retention.

The Air Force Studies. Although these could have been included in a number of previous categories, they are reviewed separately here for a number of reasons. First, the methodological rigor employed was approached or matched by few of the studies cited above. Secondly, the data obtained tapped several hundred variables along a number of dimensions, thus comprising an extremely rich source. The Air Force data is reported in a number of studies (Carr, Orthner, Brown III, 1978; Orthner, 1980a, 1980b). In the main report (Orthner, 1980a), the factors relevant to retention decisions included: spouse support for career, close friendship support, satisfaction with the level of pay, satisfaction with Air Force rules and regulations, satisfaction with treatment by superior and feelings of job security. Of these, the single most important factor was spouse support for an Air Force career, especially with younger enlisted and officer members. Factors contributing to job morale were different for men and women (Orthner, 1980b).

Satisfaction with personnel management contributed to job morale and retention intent. Air Force wives were most dissatisfied with personnel support, with many women wanting more or better marital support programs, especially overseas.

The picture delineated by the Air Force studies emphasizes that marital solidarity and relational support systems are most important for job morale and retention. The need for such support may be increased due to the changing nature of marital roles and the family in the society at large.

Literature Critique and Causal Model. The studies reviewed above, while few in number (compared to the thousands of references available on retention in the civilian population ), do give rise to a formidable array of variables, variable content areas, and relationships among those variables and areas. Despite the richness of some of the data sets described, or perhaps due to that richness, many of the studies have essentially underanalyzed the data, merely reporting the percentage of respondents answering a given way with some accompanying Chi-square or t-tests to ascertain statistical significance. Many of the studies exhibited a notable lack of multivariate analysis even though appropriate for the data at hand.

Apart from critiques of such method and design considerations as validity, reliability, and bias, the studies above suggest sets of diverse variables that may be directly or indirectly predictive of retention. The main theme that runs



through the literature taken in aggregate is that an individual's career choices, such as whether or not to remain in the Navy, take place in a number of simultaneous contexts. These contexts are inter-related and interactive. Figure 1 exemplifies one possible perspective of the variable domains that may be predictive of retention. It presents the variables culled from the studies above, classified according to a taxonomic scheme which reflects the possible contexts within which a retention decision is made. The four contexts are:

- o Individual Variables. Included here are demographic, psychological, and sociological variables as well as the re-enlistment variables.
- o Family Variables. This category covers spouse characteristics, marital satisfaction, Navy/family conflicts, and aspects of family life.
- o Job Variables. Work occurs in the context of other people -- co-workers and supervisors as well as the individual. Thus, this category includes such constructs as counselor support, job characteristics, and concordance between job and career expectations.
- o Navy Variables. Being in the Navy is a way of life with its own unique characteristics that differ from those in other military branches. Additionally there are a number of services the Navy offers to its members, services which may enhance the Navy life for some and diminish the potential rewards for others.

The taxonomic scheme described above, while very broad, is deficient in that the essential interconnectedness among all of these variables is not evident. People do not isolate the various factors of everyday life either conceptually or behavioral. In order to do justice to the multi-faceted nature of any human experience, these variables must be combined in a manner suggestive of causally interactive relationships.

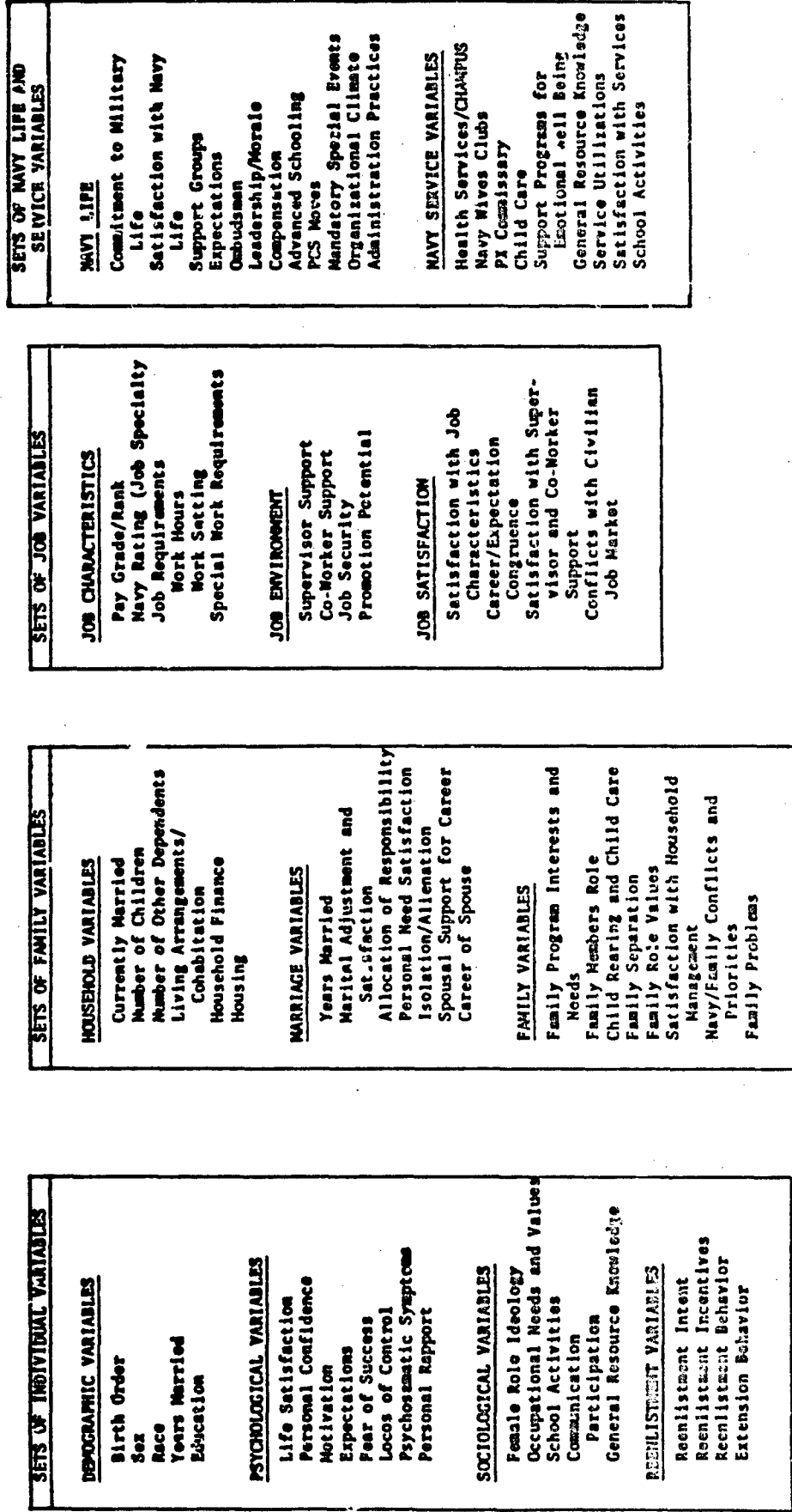


FIGURE 1: INITIAL SETS OF VARIABLE DOMAINS

Taking this approach, a path analytic model was developed, relating many of the important dimensions discussed in the literature review into a framework for study and analysis. Figure 2 graphically displays this model. The thirteen major components shown in Figure 2 represent sets rather than individual variables to facilitate graphic interpretation. The first factor in the model consists of various demographic characteristics. Variables such as gender, race, and educational level determine, to a certain extent, the opportunity structure available to an individual. Sociological literature is replete with examples of demographics as exogenous variables associated with causally subsequent variables. In the model, demographics are predicted to contribute to household variables (e.g., household maintenance responsibility), job characteristics, and marriage and family variables. Within this first segment, household variables are also hypothesized to be causally related to marriage and family variables.

Financial status in the model is meant to encompass not only a respondent's individual income but the total income available to a family. It includes such things as spouse's income, BAS (Basic Allowance for Subsistence), BAQ (Basic Allowance for Quarters), income from an outside job, and income from a person's dependents. Job characteristics contribute somewhat to the financial status, although basic pay is determined by pay grade. Household variables such as rent or mortgage, utilities, and transportation costs, contribute inversely to

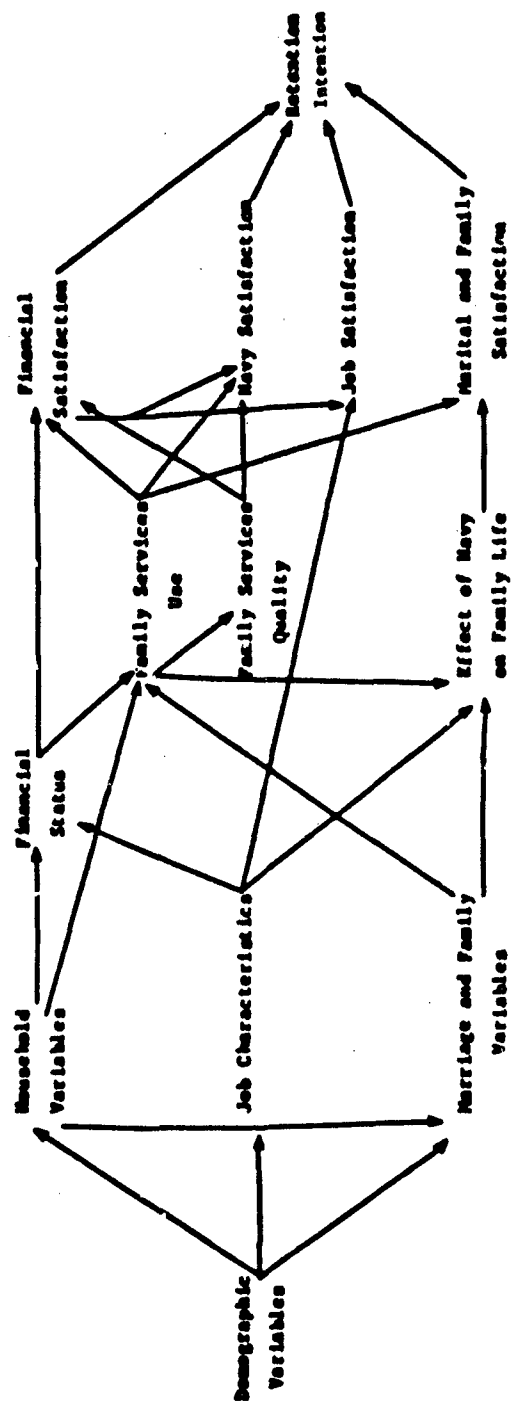


FIGURE 2: INITIAL CAUSAL MODEL

financial status. The demands of the household and the job as well as the family income available are hypothesized to contribute to financial satisfaction. In general, the lower the financial status, the lower the financial satisfaction, and the more likely that a person will want to leave the Navy.

Household and marriage variables as well as financial status are seen to determine the extent of use of family services which, in turn, affect the assessments of the quality of family services. It is hypothesized that the more services that are used or desired, the more opportunity there will be to assess their quality, and the greater the possibility of Navy/family conflicts, especially if family services do not match the expectations or the needs of the family. The availability and use of family services are seen to also contribute to financial satisfaction, satisfaction with Navy life, and marital and family satisfaction. Navy/family conflicts contribute negatively to marital and family satisfaction which contributes to the retention decision.

The last stage in the model posits four types of satisfaction measures all of which are hypothesized to affect the outcome of the retention decision: financial satisfaction, satisfaction with Navy life, job satisfaction, and marital/family satisfaction. Among these indicators, financial satisfaction is hypothesized to indirectly affect Navy life satisfaction and job satisfaction.

The path analysis conducted in the first study revealed four factors contributing directly to the intended retention decision and other factors with indirect contributions. The direct factors were:

- o Opinion of the Spouse
- o Satisfaction with family life in the Navy
- o Job Satisfaction
- o Years of military service

The indirect factors were:

- o Social support from co-workers
- o Satisfaction with Navy services
- o Marital Satisfaction
- o Satisfaction with family separation.

The primary purpose of the current study was to re-examine the findings in light of the behavior of the individuals from the first study. The next section describes the target sample and the procedures by which retention behavior was examined.



## METHOD

### Sample

Three constraints were desirable for defining the sample universe:

- o Since the aim of the study involved the examination of Navy families, only those personnel who are currently married and/or have primary dependents would be selected.

This constraint dictates that only personnel with primary dependents be part of the sampling universe. Extrapolating from the figures provided by Orthner and Nelson (1980), there were 283,379 such personnel in the Navy at the time of the first study. This figure includes persons with civilian spouses, with and without children, and dual military couples.

- o Since enlistees in the E4 through E6 pay grades and officers in the O1 through O4 pay grades are of greatest interest to the study, only personnel falling within this range would be selected.

These persons are at a critical point in their Navy career: not too old to start a new career as civilians, but having had enough experience in the Navy to make a reasonable decision. Also, these persons are at an age when the demands of family are very meaningful and when Navy/family conflicts may be at their most salient. Finally, these persons represent a large financial investment to the Navy, and efforts at increasing their retention would be particularly cost effective.

- o Because the purpose of the study was to examine retention, it was necessary to define a temporal window which would locate individuals who had to make a retention decision.

An initial examination was made of the information contained in the Navy personnel master tapes to ascertain the exact number of persons in the sampling universe defined by the



above constraints. It was decided to survey all the individuals falling within the following parameters:

- o E4 through E6 pay grade for enlisted, 01 through 04 for officers.
- o One or more primary dependents
- o For enlisted, those whose term of enlistment would end on November 1, 1981; for officers, those whose Minimum Service Requirement (MSR) would end sometime in the period from July, 1981 through July, 1982.

#### Instrument Development

The vehicle for data collection in the first study was a lengthy and comprehensive questionnaire. The development of the questionnaire was a collaborative effort involving Westinghouse staff, the Navy Personnel Research and Development Center (NPRDC), and staff from the Navy Family Support Division (NMPC-66). The questionnaire consisted of 326 items (338 items for dual military career couples) classified into a number of categories, including:

- o Demographic items
- o Household, marriage, and family (Part of Section V, Section VI)
- o Housing and housing expenses (Section VII)
- o Transportation (Section VIII)
- o Job and work conditions, (Section IX)
- o Financial information, including household income and Navy allowances (Section X)

- o Social support (Section XI)
- o Family separation, including information on deployments and Temporary Duty Assignments (Section XII)
- o Relocation (Section XIII)
- o Satisfaction with Navy life and services (Section XIV)
- o Factors associated with the retention decision (Section XV, XVI)
- o Improvements in aspects of Navy life and services (Section XVII)

The substantive areas included in the questionnaire were varied enough to capture the breadth of the Navy/family experience, while each area was covered in sufficient detail to assure capturing the depth of that experience. Each major section frequently included objective or factual items (e.g., number of hours worked in the Navy job) as well as attitudinal items eliciting an opinion on the part of the respondent. Additionally, some of the sections contained scales from past surveys which were of theoretical as well as practical interest.

Because the sample included dual military couples, the main survey was augmented with a questionnaire section applicable only to those couples. This version of the questionnaire was sent only to individuals who were in a dual military career situation. Both versions of the questionnaire were submitted to the Department of Defense for approval. A copy of the approved questionnaire is included as Appendix A of this report.

### Follow-Up Study

In order to ascertain the retention behavior of the individuals involved in the first study two different data sources were used.

- o Enlisted Personnel System Tracking File.
- o Officer Attrition File.

Both of these files are maintained by NMPC. For both files, Westinghouse submitted a magnetic tape containing only the social security numbers of the individuals from the study target sample. Because the need for confidentiality was paramount, three separate sets of files were used by Westinghouse:

- o SSN files, containing only the social security numbers of persons in the target sample. It was used to key official Navy records (such as the Officer Attrition File) to the target sample.
- o Survey response file, containing the survey responses of the sample, along with their Westinghouse generated 5-character ID number.
- o Id number translation file, containing the internally generated Westinghouse Id and the social security number. This file was used by Westinghouse personnel to match Navy records and survey responses.

Westinghouse received sets of files containing the tracking and attrition data from the Navy. By means of computer programs specifically written for the task, Westinghouse staff created a number of files which constituted supersets of the obtained files so that each respondent had all of his or her respective data in one place. The social security numbers were deleted from these master files so that the confidentiality of individuals was not compromised.

## RESULTS

There were 1016 officers and 3802 enlisted personnel in the target sample, for a total number of 4818 individuals. Table 1, reproduced from the first study, shows selected demographic characteristics of the target sample. These data were compiled from information supplied from the Navy Personnel Master Tapes. It can be seen that the target sample was overwhelmingly male and predominately white, with blacks comprising 11.6% of the enlisted personnel and 4.2% of the officers, and a sizable proportion of persons in other racial categories. Although an attempt was made, in selecting the original sample, to include only enlisted grades of E4 through E6, it can be seen that all nine pay grades were represented, with the majority of the sample concentrated in the desired pay grades. Most enlisted personnel had a high school education. Since no educational data was supplied for the officers, it is not shown in the Table.

For comparison purposes, Table 2 provides the same information for the respondent sample as Table 1 did for the target sample. Examination of Table 2 shows that females tended to respond at a higher rate than did males, and that whites responded at a higher rate than blacks among both officers and enlisted personnel. The "other" category for race showed a much higher response rate for enlisted personnel than for officers. Inspection of the response rates as differentiated by pay grade shows an

TABLE 1: SELECTED CHARACTERISTICS OF TARGET SAMPLE

		<u>Enlisted</u>		<u>Officer</u>		
		(n)	%	(n)	%	
Sex:	Male	3584	94.3	968	95.3	
	Female	218	5.7	48	4.7	
Race:	White	2969	78.1	790	77.8	
	Black	442	11.6	43	4.2	
	Other/unknown	391	10.3	183	18.0	
Rate/Grade:	E1	45	1.2	01	42	4.7
	E2	88	2.3	02	573	56.4
	E3	296	7.8	03	387	38.1
	E4	928	24.4	04	13	1.3
	E5	970	25.5	05	1	.1
	E6	1078	28.4			
	E7	352	9.3			
	E8	38	1.0			
	E9	7	.2			
Education: (years in school)	0 - 8	20	.5			
	9 - 12	3238	84.9			
	13 - 16	544	14.3			
	16+	10	.2			
TOTAL:		3802	100.0	1016	100.0	

TABLE 2: RESPONSE RATE BY SELECTED CHARACTERISTICS  
FOR OFFICERS AND ENLISTED PERSONNEL

Enlisted				Officers		
	(n)	(%)	(Response %)	(n)	(%)	(Response %)
Sex: Male	978	92.3	27.3	292	94.2	30.2
Female	82	7.7	37.6	18	5.8	37.5
Race: White	864	82.1	29.1	293	94.2	37.0
Black	62	5.9	14.0	7	2.3	16.3
Other	126	12.0	32.2	11	3.5	6.0
Rate/Grade: E1	0	0.0	0	*		
E2	3	0.3	3.4			
E3	21	2.0	7.1			
E4	125	12.0	13.5			
E5	331	31.7	34.1			
E6	407	39.0	37.8			
E7	125	12.0	35.5			
E8	26	2.5	68.4			
E9	5	.5	71.4			
Education						
Years in	0-8	0	0.0	0	0.0	**
School)	9-12	910	98.5	6	1.9	
	13-16	113	11.0	223	71.5	
	16+	5	.5	83	26.9	

Due to a misworded question in the survey, officers did not always give their paygrade, thus making the officer paygrade data not comparable with those from the Master Tape.

Since no educational data for officers were provided in the abbreviated Master Tape file sent to Westinghouse, response rates could not be computed.

apparent positive relationship as a function of pay grade. This observation should be tempered by the fact that the small "n's" at the pay grade extremes make the corresponding response rates gross estimates at best of the "true rate".

Despite the differential response rate by sex and race, the respondent sample does not deviate markedly from the target sample except for blacks. Blacks are under-represented by about half. Any generalizations in this report based on difference as a function of race, therefore, should be interpreted with extreme caution.

#### Retention Behavior of Respondents and Non-Respondents

A critical methodological issue has to do with the extent to which the results of survey data from a sample can be generalized to the universe from which the sample came. This is especially true with regard to the primary criterion variable: retention. It was not possible to assess this generalizability in the first study because retention intent was not available for non-respondents. But because data on retention behavior was available for everyone, the potential generalizability of the survey results can be examined. If it can be shown that non-respondents behaved in the same manner (within measurement error) as respondents, then confidence in the generalizability of the sample would be increased.

Table 3 shows the relative proportion of non-respondents and respondents by their actual retention behavior; i.e., staying in or leaving the Navy. Data are displayed separately for officers and enlisted personnel. The numbers of persons in any category of the tabular subdivision are always shown in parentheses. The rows and columns labeled "Marginals" represent the proportion of persons in a certain category, ignoring the other category.

Table 3 illustrates these points:

- o Officers had a higher response rate than enlisted persons (i.e., a larger proportion of respondents as evidenced by the right-hand column marginals).
- o For officers there was no statistically significant relationship between retention behavior and whether they responded to the survey or not. There was, however, a slight trend for those who left the Navy to respond at a greater rate in comparison to those who stayed.
- o For enlisted personnel, there was a statistically significant relationship between behavior and respondent type. A higher proportion of those who stayed responded, in comparison to those who left.

The implications are that any conclusions drawn about officers can be held with confidence and that any drawn about enlisted persons deserve some caution. However, the relative proportion of "stayers" and "leavers" for respondents and non-respondents is still fairly close so that this statistically significant difference may have relatively small conceptual implications. Arguably, it is also conceivable that, within a behavior category (e.g., leave), the dynamics at work in the decision process are more often similar than dissimilar.



TABLE 3: RETENTION BEHAVIOR OF RESPONDENTS AND NON-RESPONDENTS  
FOR OFFICERS AND ENLISTED PERSONNEL

**OFFICERS**

		BEHAVIOR		
		<u>Leave</u>	<u>Stay</u>	<u>Marginals</u>
Non-Respondents:	% (n)	14.1% (64)	85.9% (391)	55.8% (455)
Respondents:	% (n)	17.8% (64)	82.2% (296)	44.2% (360)
Marginals:	% (n)	15.7% (128)	84.3% (687)	100.0% (815)

Chi-Square = 1.82 p > .10

**ENLISTED PERSONNEL**

		BEHAVIOR		
		<u>Leave</u>	<u>Stay</u>	<u>Marginals</u>
Non-Respondents:	% (n)	34.4% (736)	65.6% (1404)	64.3% (2140)
Respondents:	% (n)	27.2% (323)	72.8% (1187)	35.7% (1187)
Marginals:	% (n)	31.8% (1059)	68.2% (2268)	100% (3327)

Chi-Square = 17.82 p < .001

NOTE: The marginal percentages presented here are conceptually different from the within-cell percentages. Please see text for details.

Figure 3 graphically displays the retention behavior of respondents and non-respondents, organized as a hierarchical tree stemming from the target sample. The percentages shown in each successive level of the tree refer only to the node immediately above. So, for example, for officers, 82.2% of the 44.2% who were respondents stayed in the Navy.

#### The Link Between Intention and Behavior

One of the primary objectives of this research is to deepen the understanding of the link between retention intent and retention behavior. Attitudes, intentions, and behavior have been studied in social psychology for a number of years. Although a number of theoretical frameworks exist, and some have achieved pre-eminence over others, the exact link between attitude and behavior remains uncertain. Part of this uncertainty stems from:

- o The logical extensions required in specifying a general theory of attitudes and behavior and then interpreting the theory in the context of a single specific attitude and a single specific behavior.
- o The uncertainty injected into any theory by the fact that people are stochastic creatures: while we may assign a probabilistic link between attitude and behavior (i.e., a propensity), we can and do change our minds. Furthermore, we are not necessarily consistent internally, increasing the net uncertainty.

Thus, the retention behavior of persons in the sample as a function of expressed intention is a phenomenon requiring some extended examination.

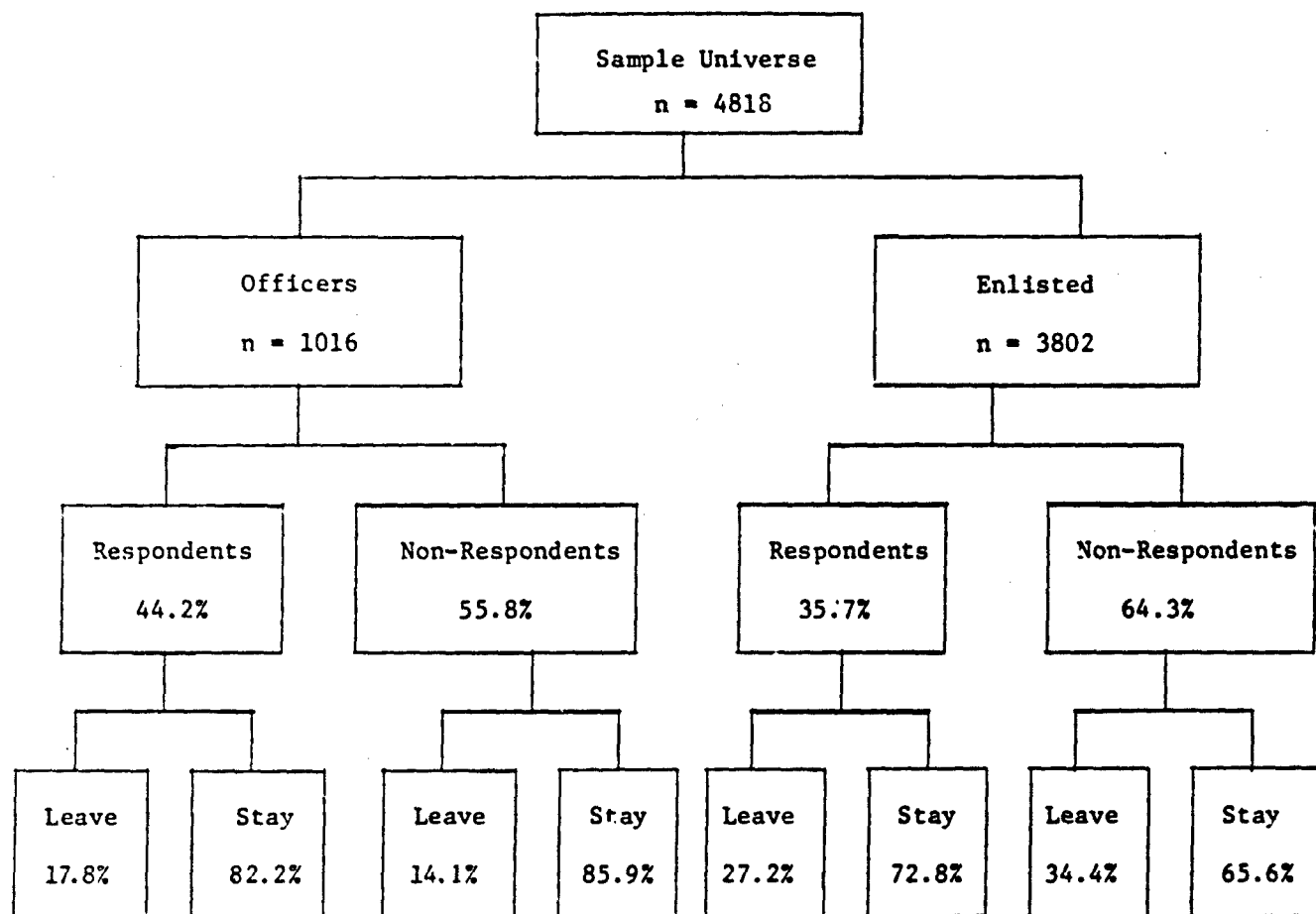


FIGURE 3: HIERARCHICAL DEPICTION OF RETENTION BEHAVIOR FOR RESPONDENTS AND NON-RESPONDENTS

Table 4 shows retention behavior for officers and enlisted persons as a function of their retention intent. The relationships for officers and enlisted persons are both statistically significant as would be expected. This Table exhibits some fascinating and provocative characteristics. The rows and the row marginals show the intention of the respondents. Almost two-fifths (37%) of the respondents (officers and enlisted personnel combined) indicated that they wished to leave the Navy. About one-fourth (24%) actually left. Further, as Table 4 shows, the extent to which respondents carried out their expressed intention differed in a number of ways:

- o Those respondents with the intention of staying exhibited the highest concordance between intent and behavior. Almost all (96%) of those respondents with the intent to stay actually stayed in the Navy.
- o Those respondents with the intention of leaving exhibited the lowest concordance between intention and behavior. Only about one-half (48%) of the respondents with the intent to leave actually left.
- o Those respondents who were undecided about their retention intent tended to stay. Only about one-tenth (13%) of the undecided respondents actually left the Navy.

It must be remembered that even from a methodological standpoint, studying the link between intention and behavior is problematic: stated intentions are frequently colored by such things as situational demand characteristics and the social desirability or non-desirability of a particular response. Inherent in surveys such as the one in the first study is the assumption that respondents answer honestly, without intending

TABLE 4 : RETENTION BEHAVIOR AS A FUNCTION OF  
RETENTION INTENT FOR OFFICERS AND ENLISTED

<u>OFFICERS</u>		<u>BEHAVIOR</u>		<u>Marginals</u>
		<u>Leave</u>	<u>Stay</u>	
<u>ORIGINAL INTENTION</u>	Leave % (n)	42.1% (51)	57.9% (70)	33.0% (121)
	Undecided % (n)	8.1 (10)	91.9% (113)	33.5% (123)
	Stay % (n)	1.6 (2)	98.4% (121)	33.5% (123)
Marginal: % (n)		17.2 (63)	82.8% (304)	100.0% (367)

Chi-Square = 81.06  $p < .001$

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<u>ENLISTED PERSONNEL</u>		<u>BEHAVIOR</u>		<u>Marginals</u>
		<u>Leave</u>	<u>Stay</u>	
<u>ORIGINAL INTENTION</u>	Leave % (n)	55.9% (252)	44.1% (199)	38.4 (451)
	Undecided % (n)	15.3% (37)	84.7 (205)	20.6 (242)
	Stay % (n)	4.2% (20)	95.8% (461)	41.0 (481)
Marginal: % (n)		26.3 (309)	73.7 (865)	100.0 (1174)

Chi-Square = 340.16  $p < .01$

to deliberately lie or misrepresent their intentions. Finally, intentions themselves are at times vague, unclear, and inconsistent with prior behavior or attitudes.

Of course, a major premise of social science is that patterns do emerge from the statistical aggregate of a particular group. Thus, in this analysis of intention and behavior, we wish to identify and elucidate patterns of intention and behavior that are typical of the particular group or sub-group in question. Examination of the data in Table 4 suggests that a conceptual scheme for classifying different patterns of intention and behavior might be of some utility. The next section describes such a scheme.

#### A Conceptual Scheme For Retention Decisions

One of the most active areas in social psychological research has been that concerned with "Dissonance" Theory. Briefly, Dissonance Theory suggests that if a person's actions are not consistent with their prior statements or attitudes, a tension is created that needs resolution. Many times the nature of the resolution takes the form of a revision of prior attitudes. In a similar fashion we can think of the link between intention and behavior -- at least in the realm of the retention decision -- in terms of "concordance". By thinking of the respondents in the sample in terms of their expressed intention compared to their actual behavior, we get a scheme such as the one shown in Figure 4.

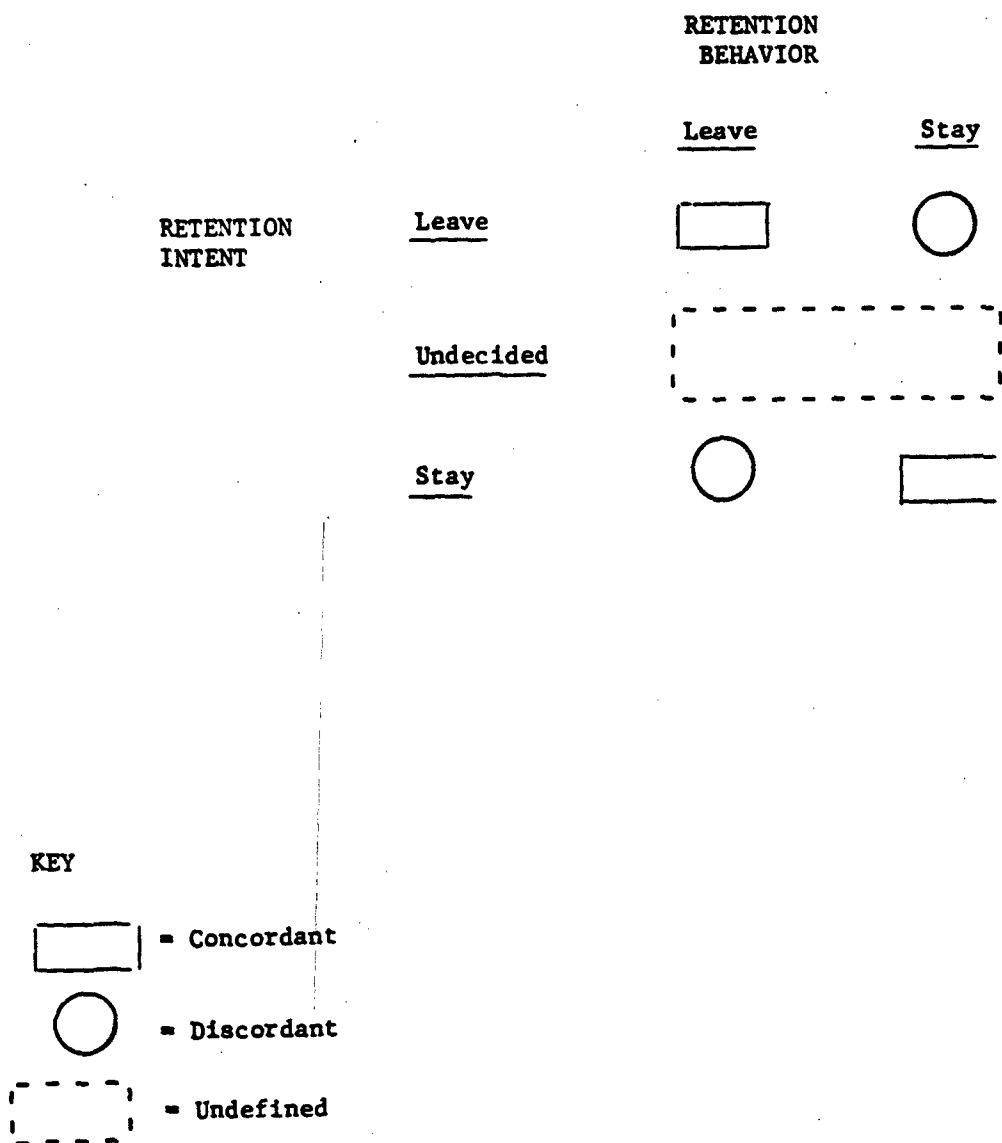


FIGURE 4: CONCEPTUAL SCHEME FOR CONCORDANT/DISCORDANT  
RETENTION DECISION

The Figure shows five different subgroups:

- o Concordant Leavers: Those whose intention to leave the Navy corresponded to their action.
- o Concordant Stayers: Those whose intention to stay in the Navy corresponded to their action.
- o Discordant Leavers: Those who intended to stay but actually left.
- o Discordant Stayers: Those who intended to leave but actually stayed.
- o Undecided: Those who indicated that they did not know their intention at the time of the first study.

Looking at the data of Table 4, it is clear that these five groups are represented with different proportions in the sample and that the enlisted/officer patterns differ. For example, there were more concordant leavers among enlisted personnel than among the officers. Additionally, there were slightly more concordant stayers among the officers than among enlisted personnel, and there were more undecideds among the officers than among the enlisted personnel. However, behavior patterns for the undecided respondents were very similar for officers and enlisted persons. In both groups, the proportion of undecideds that stayed in the Navy was overwhelmingly high. Also, those who intended to leave but nevertheless stayed in the Navy were a sizeable group as compared to the other groups in the conceptual scheme.

This suggests that an analysis of some of these groups might be very fruitful. Of special interest would be the following:



- o Discordant Stayers. About half of these individuals did not do what they said they would -- leave the Navy. It would be very helpful to understand the reasons and rationale for these people changing their minds. Assuming that their stated intention was truthful (and in the aggregate, it probably was), identifying the exact nature of the decision process is of some value.
- o Concordant Leavers. These are the individuals who left the Navy just as they said they would. It is for these individuals that the reasons behind their dissatisfaction with the Navy would be perhaps the most clear.
- o Undecideds. In the analysis of the data from the first study, it was reported that the undecided individuals possessed some characteristics more typical of those intending to leave. Thus, they seemed to be in the middle of some psychological continuum between these two opposite intentions. In this light, it is surprising that such a high proportion of these individuals ultimately stayed in the Navy. At the same time, it would be of some interest to go back and examine the pattern of their responses in the light of their subsequent behavior.

These groups are discussed further in a later section of this report. The conceptual scheme presented here has guided parts of the analysis, and it deserves further investigation.

The next major section discusses the simple (i.e., one-dimensional) correlates of retention behavior. In this context, the term correlates is used not in a statistical sense, but rather to denote those variables that may be related to retention behavior. It is similar in spirit to a like - titled section in the report of the first study. In this way it will be possible to compare the data for intention and for behavior from the two reports.

## Correlates of Retention Behavior

Demographic Characteristics. Past research as well as anecdotal evidence suggests that retention varies to a limited extent with the demographic characteristics of the person. Table 5 displays the data for retention behavior as a function of sex, race, enlistment term, type of duty, and fleet assignment of the respondents. (In this context, the word "function" is used simply to indicate the presence or absence of a statistical relationship, not necessarily a causal one.) For this table, the term "demographics" includes some characteristics of the respondent's Navy job.

The data are reported separately for officers and for enlisted personnel. The numbers in parentheses give the number of persons in that particular subcategory. The percent leaving and the percent staying are arithmetic complements of each other. At the very bottom of Table 5 is a small subtable that indicates whether or not a particular relationship is statistically significant. If the relationship between a variable and retention behavior is significant, then the Chi-Square value is displayed. If the relationship is not significant, the subtable entry contains two dashes.

It can be seen that only three of these relationships are significantly related to retention behavior:

TABLE 5 : RETENTION BEHAVIOR AS A FUNCTION OF SELECTED DEMOGRAPHIC AND  
ASSIGNMENT CHARACTERISTICS FOR OFFICERS AND ENLISTED PERSONNEL

		<u>OFFICERS</u>			<u>ENLISTED PERSONS</u>		
		(n)	Leave %	Stay %	(n)	Leave %	Stay %
SEX:	Male	(349)	17.2	82.8	(1113)	26.3	73.7
	Female	(19)	15.8	84.2	(87)	29.9	70.1
RACE:	White	(347)	17.3	82.7	(977)	28.2	71.8
	Black	(7)	14.3	85.7	(73)	19.2	80.8
	Spanish/Indian	(6)	33.3	66.7	(37)	32.4	67.6
	Asian	(5)	0.0	100.0	(85)	10.6	89.4
ENLISTMENT TERM:	First:	DNA			(423)	42.3	57.7
	Second:	DNA			(366)	24.6	75.4
	Third:	DNA			(305)	9.2	90.8
	Fourth:	DNA			(94)	18.1	81.9
TYPE OF DUTY:	Surface	(162)	17.9	82.1	(462)	29.4	70.6
	Submarine	(41)	29.3	70.7	(124)	28.2	71.8
	Naval Air	(64)	4.7	95.3	(309)	24.3	75.7
	Other	(96)	17.7	82.3	(269)	23.4	76.6
FLEET:	Pacific	(93)	14.0	86.0	(278)	29.1	70.9
	Atlantic	(125)	20.0	80.0	(365)	28.2	71.8
	Ashore U.S.	(133)	17.3	82.7	(425)	24.9	75.1
	Ashore Overseas	(12)	0.0	100.0	(116)	21.6	78.4

RETENTION BEHAVIOR - SUMMARY OF DEMOGRAPHIC AND ASSIGNMENT RELATIONSHIPS

Notes: Chi square values are presented  
for those relationships that are  
statistically significant at  
 $p \leq .05$

-- = Not Statistically Significant

DNA = Does Not Apply

<u>VARIABLE</u>	<u>OFFICERS</u>	<u>ENLISTED</u>
Sex	--	--
Race	--	15.25
Term	DNA	105.58
Duty	11.47	--
Fleet	--	--

- o Race for enlisted personnel.
- o Enlistment term for enlisted personnel.
- o Type of duty for officers.

In all instances, positive retention behavior (i.e., staying in the Navy) was higher in comparison to retention intent. The exact reasons for this phenomenon will be discussed in later chapters of this report.

The retention behavior of enlisted persons varied with their racial or ethnic category. The Asian enlisted personnel exhibited the highest retention behavior; the Spanish/American Indians exhibited the lowest. It is interesting to note that Blacks and Asians have the highest retention rates. This corresponds to the finding from the first study on intention, where these two groups also had relatively high rates of intending to stay in the Navy.

As expected, retention behavior varied tremendously as a function of the enlistment term. Those in their first term left in the greatest proportions, with the proportion leaving decreasing in the higher terms. The Table shows that those in the fourth term left at a higher rate than those in the third term. This is not as anomalous as it may first appear because the fourth termers include those who have reached 20 years of service. In fact, term of enlistment corresponds only loosely to years of service because of the different lengths of time that may constitute a single term of enlistment.

Retention varied with type of duty only for officers. Here we see those assigned to submarine duty having the lowest retention rates, and those assigned to Naval Air with the highest. This also corresponds to the findings in the first study with regard to intention. The reasons for this variation of retention with type of duty are fairly direct. The hardships imposed by submarine duty are well documented. It is a great stressor and can lead to great tensions for many persons, regardless of whether they have a family or are single. Naval Air duty may be at the other end of the spectrum, carrying with it a certain amount of status and additional benefits.

Marriage and Family. Just as retention may vary with the demographic characteristics of an individual, the first study found that retention intent varied somewhat with what can be described as the demographic characteristics of the family unit. Table 6 shows the retention behavior of the respondents and its variation with whether or not the respondent is a single parent, whether this is a traditional marriage, whether the spouse works, and whether the spouse has a professional or a paraprofessional occupation. The format of the Table is similar to the previous one.

Whether a marriage was considered to be traditional or not was deduced from the respondent's answers to questions concerning the sharing (non-traditional) or non-sharing (traditional) of

household duties such as child care and the locus of responsibility for decision making. The classifications that were ultimately used were imperfect; yet they are useful for examining any pattern if it exists.

Of the variables shown in Table 6, only two are significantly related to retention behavior:

- o Enlisted personnel with mixed marriages.
- o Officers whose spouses have professional jobs.

Enlisted personnel who had mixed marriages stayed in the Navy to a greater degree than those who did not. This corresponds to a similar finding in the first study with regard to intention. Officers with spouses possessing professional jobs left in greater proportion than those who did not.

Other relationships contained in Table 6 are as follows:

- o Mixed Marriages. These were much more common among the enlisted respondents than the officers. About 1 out of 9 enlisted persons was in a mixed marriage while only 1 officer out of 30 was in such a marriage.
- o Traditional Marriage. As classified by an admittedly imperfect measure, sizeable proportions of enlisted personnel and officers were in non-traditional marriages. The fact that there was no relationship with regard to retention behavior may imply that this variable is not an effective construct as used in this study.
- o Working Spouse. About equal proportions of enlisted personnel and officers had spouses who work. This proportion (about half) is close to the national norm among civilians so that military families are very similar to the national norm. There is a marked trend on the part of officers with working spouses to exhibit lower retention than enlisted persons. The

TABLE 6 : RETENTION BEHAVIOR AS A FUNCTION OF SELECTED  
MARRIAGE AND FAMILY VARIABLES (PART I)

		(n)	OFFICERS		ENLISTED PERSONNEL		
			Leave %	Stay %	(n)	Leave %	Stay %
MIXED MARRIAGE	Yes	(12)	16.7	83.3	(128)	18.8	81.3
	No	(336)	17.3	82.7	(933)	27.3	72.7
SINGLE PARENT	Yes	(7)	14.3	85.7	(60)	31.7	68.3
	No	(359)	17.0	83.0	(1137)	26.4	73.6
TRADITIONAL MARRIAGE	Yes	(150)	16.7	83.3	(622)	25.9	74.1
	No	(203)	17.2	82.8	(477)	26.2	73.8
SPOUSE WORKS	Yes	(184)	20.1	79.9	(590)	25.3	74.7
	No	(169)	13.6	86.4	(509)	26.9	73.1
SPOUSE HAS PROFESSIONAL JOB	Yes	(116)	26.7	73.3	(206)	28.2	71.8
	No	(61)	8.2	91.8	(747)	24.2	75.8

RETENTION BEHAVIOR - SUMMARY OF MARRIAGE AND FAMILY RELATIONSHIPS (PART I)

Notes: Chi square values are presented  
for those relationships that are  
statistically significant at  
 $p \leq .05$

-- = Not Statistically Signifi-  
cant

DNA = Does Not Apply

VARIABLE

Mixed Marriage

Single Parent

Traditional Marriage

Spouse Works

Spouse Prof. Job

OFFICER

--

--

--

--

7.36

CHI-SQUARE

3.85

--

--

--

--

reason behind this relationship is found in the sub-table for the next variable: professional job.

- o Spouse with Professional Job. A much higher proportion of officers have spouses with professional positions as compared to enlisted personnel. This may explain the lower retention of officers with spouses who work in the following way. It is likely that spouses with professional positions have career demands that are treated on an equal footing as those of the military member. Thus, there may be not only an increase in conflict for the family staying in the Navy -- subject to various PCS moves -- but also an increase in the depth of that conflict.

As Table 6 shows, there are relationships between family factors and retention: mixed marriages among enlisted personnel are related to increased retention behavior; whether a spouse has a professional position, on the other hand, is indicative of decreased retention for officers. It seems to be true that even on the level of demographic characteristics, the factors in a marriage are intertwined with retention behavior. As we shall see below, attitudinal factors increase this complexity.

Marriage and family structure are examined further in Table 7. This Table goes beyond the household characteristics presented in the first study by specifying family structure in terms of dependent type (spouse, child, others) and family life cycle. The family life cycle variable is defined so as to represent the age of the youngest child. It shifts the focus from the number of children to the degree of their dependency on their parents, as a representation of the maturity of the family. In this sense, the measure represents stages in family life from the extreme dependency of the pre-school child to the



TABLE 7 : RETENTION BEHAVIOR AS A FUNCTION OF SELECTED  
MARRIAGE AND FAMILY VARIABLES (PART II)

FAMILY STRUCTURE		OFFICERS			ENLISTED PERSONNEL		
		(n)	Leave %	Stay %	(n)	Leave %	Stay %
No one		(29)	13.8	86.2	(67)	23.9	76.1
Spouse only		(139)	25.2	74.8	(233)	34.3	65.7
Child only		(32)	12.5	87.5	(189)	28.0	72.0
Others only		(5)	20.0	80.0	(12)	25.0	75.0
Spouse & child		(165)	10.9	89.1	(668)	25.4	74.6
Spouse & child & others		(1)	0.0	100.0	(30)	3.3	96.7
IS THERE AT LEAST ONE CHILD							
	Yes	(198)	11.1	88.9	(896)	25.1	74.9
	No	(174)	23.6	76.4	(321)	31.5	68.5
FAMILY LIFE CYCLE (Age of Youngest Child)							
No children		(174)	23.6	76.4	(321)	31.5	68.5
Under 5 years		(160)	11.9	88.1	(630)	27.6	72.4
5-12 years		(29)	6.9	93.1	(207)	16.4	83.6
13-18 years		(2)	0.0	100.0	(36)	22.2	77.8
over 18 years		(7)	14.3	85.7	(23)	39.1	60.9

RETENTION BEHAVIOR - SUMMARY OF MARRIAGE AND FAMILY RELATIONSHIPS (PART II)

Notes:	VARIABLE	CHI-SQUARE	
		OFFICER	ENLISTED PERSONNEL
Chi square values are presented for those relationships that are statistically significant at $p \leq .05$	Family Structure	11.98	17.48
	At least 1 child	9.34	4.54
	Family Life Cycle	10.87	17.31
-- = Not Statistically Significant			
DNA = Does Not Apply			

"empty nest" condition where children are no longer living with the parents. As in the first study, the simple presence of dependent children is also presented in the Table, but in this case it is summarized as a dichotomy.

All three of these variables represent statistically significant relationships for both officer and enlisted personnel. As was true for intention, those without dependent children were more likely to leave. The proportion staying then increases progressively for officers and enlisted personnel whose youngest child is under 5 years, and for those whose youngest child is between 5 and 12 years old. Looking at family structure, Navy members comprised of a couple with no children (spouse only) are more likely to leave the Navy than are those comprised of children only or of both children and spouse.

Two aspects are of major importance: the presence of dependent children, and the age of the youngest child. Increased responsibility, in the form of dependent children, appears to increase the likelihood of staying in the Navy. However, for those with dependent children, stage in the family life cycle plays a role: those with very young children (under 5) are comparatively more likely to leave than those with children between 5 and 12. This suggests that the desire for job stability through the elementary school years may have a positive effect on retention.

Spouse Influence. The unique pattern of spouse influence on the retention decision, replicated in many studies including the findings on intention reported in the first study, is as follows:

- o Both officers and enlisted personnel are usually aware of their spouse's opinion, and
- o that opinion is considered to be important.

However, spouses do not necessarily actively attempt to influence the retention decision, and this facet of the pattern was also reflected in the first study. At the same time, it should be noted that the data presented in this study are based upon the perceptions of the officers and enlisted personnel surveyed; they are not based upon direct responses from spouses.

Table 8 examines spouse support for the Navy career, spouse opinion as to the intended retention decision, and the perceived importance of the spouse's opinion. In relationship to retention behavior, the spouse's opinion was considered to be very important by both stayers and leavers. Most spouses supported the Navy career. Again, there is no significant difference here between those staying and those leaving.

There is, however, a significant difference between those who stayed and those who left and the retention preference of the spouse. There is a positive match between those who stayed and spouse desire for the respondent to stay in the Navy. Upwards of ninety percent of those respondents staying in the

TABLE 8: RETENTION BEHAVIOR AS A FUNCTION OF SPOUSE INFLUENCE

		<u>OFFICERS</u>			<u>ENLISTED PERSONNEL</u>		
		<u>(n)</u>	<u>Leave %</u>	<u>Stay %</u>	<u>(n)</u>	<u>Leave %</u>	<u>Stay %</u>
DOES SPOUSE SUPPORT NAVY CAREER	Yes	(317)	17.0	83.0	(948)	26.2	73.8
	No	(26)	11.0	88.5	(123)	18.7	81.3
	Don't Know	(12)	33.3	66.7	(49)	32.7	67.3
DOES SPOUSE WANT RESPONDENT TO STAY IN NAVY	Yes	(117)	2.6	97.4	(536)	9.5	90.5
	No	(177)	29.4	70.6	(469)	45.4	54.6
	Don't Know	(60)	10.0	90.0	(107)	19.6	80.4
IMPORTANCE OF SPOUSE'S OPINION	Very Important	(203)	16.3	83.7	(655)	25.2	74.8
	Quite Important	(130)	20.4	79.6	(261)	25.3	74.7
	Somewhat Important	(43)	7.0	93.0	(138)	29.7	70.3
	Not Important	(11)	27.3	72.7	(73)	27.4	72.6

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RETENTION BEHAVIOR - SUMMARY OF SPOUSE'S INFLUENCE

	<u>VARIABLE</u>	<u>CHI-SQUARE</u>	
		<u>OFFICER</u>	<u>ENLISTED</u>
Notes: Chi square values are presented for those re- lationships that are statistically sig- nificant at $p \leq .05$	...Career	--	--
	...to stay	38.16	171.38
	Opinion	--	--
-- = Not Statistically Significant			
DNA = Does Not Apply			

Navy had spouses supportive of that intent. On the other hand, for respondents who left the Navy, the proportion of spouses perceived to support staying drops to about two-thirds to one-half (for officers and enlisted personnel, respectively).

In sum, spouse opinion with respect to the retention decision is known and considered important. Concordance between spouse opinion and the retention decision was higher for those who stayed than for those who left.

Job and Military Service Characteristics. Years of service and paygrade are important factors in any job relationship. Table 9 presents these and two additional factors more closely associated with the military job: CREO category and current overseas duty. All of these factors represent statistically significant relationships for enlisted personnel. For officers, these factors are either not applicable or represent relationships which show no significant differences.

For officers, the trend is for a higher retention rate with years of service. For enlisted personnel, there is an apparent anomaly in this pattern: those with 5-8 years of service are more likely to leave than any other group, including those with 4 years of service or less. However, this is due to the fact that many first terms of enlistment are for six years. Enlisted pay grade, on the other hand, represents a predictable progression in the retention rate. That is, as pay grade increases, the proportion staying in the Navy increases.

TABLE 9 : RETENTION BEHAVIOR AS A FUNCTION OF  
SELECTED JOB AND MILITARY SERVICE VARIABLES

VARIABLE	OFFICERS			ENLISTED PERSONNEL		
	(n)	Leave %	Stay %	(n)	Leave %	Stay %
Years of Service						
Less than 4 yrs.	(138)	23.2	76.8	(311)	34.4	65.6
-8 years	(129)	14.0	86.0	(300)	39.3	60.7
-12 years	(72)	15.3	84.7	(279)	20.8	79.2
3 or more	(33)	6.1	93.9	(327)	13.1	86.9
Grade (listed)						
1-E3		DNA		(28)	57.1	42.9
4-E6		DNA		(978)	28.1	71.9
7-E9		DNA		(174)	12.1	87.9
Job Category (listed only)						
		DNA		(7)	42.9	57.1
		DNA		(131)	26.7	73.3
		DNA		(371)	20.5	79.5
		DNA		(279)	21.9	78.1
		DNA		(315)	33.3	66.7
Region (listed only)						
SEAS	(18)	5.6	94.4	(148)	18.2	81.8
Other	(340)	17.6	82.4	(975)	27.6	72.4

RETENTION BEHAVIOR - SUMMARY OF JOB RELATIONSHIPS

es: Chi square values are presented for those relationships that are statistically significant at p $\leq$ .05	<u>VARIABLE</u>	<u>OFFICER</u>	<u>ENLISTED</u>
	Years of Service	--	69.41
	Enlisted Pay Grade	DNA	50.39
	Enlisted Creo	DNA	18.29
	Overseas	--	5.31
-- = Not Statistically Significant			
DNA = Does Not Apply			

CREO categories represent the degree of importance of particular Navy jobs as a function of need and the availability of personnel with applicable skills. The CREO categories ascend in importance from Category E to Category A. There are financial incentives available for retaining individuals in the categories of greater need. The data in Table 9 suggests that these incentives are not working as well as might be hoped -- one third of the enlisted personnel in Category A left. This represents a greater proportion of leavers than for any of the other higher CREO categories.

The second factor particularly characteristic of the military job, whether or not the respondent was currently overseas, was also significant for enlisted personnel. Those who were overseas at the time of the survey were comparatively more likely to stay in the Navy. This may represent a relationship between the likelihood of overseas assignment and other career factors, or it may simply represent the preference for overseas assignment on the part of some individuals. At any rate, it is not possible to assess family disruption or stability from this factor alone; other factors potentially disruptive of families are discussed below.

The job and military service characteristics examined here do present three particularly clear messages that relate to the retention of enlisted personnel. The first is that, as would be expected, increased pay grade is associated with increased

retention. The second is that the first 8 years of service for enlisted personnel are particularly vulnerable ones with respect to retention; in keeping with many earlier studies, these people leave at a much higher rate than any other group. The third is that the Navy is experiencing some difficulty in retaining CREO Category A personnel.

Deployment and TADs. TADs and deployment represent forms of travel while on military duty, for shorter periods (TADs) or more extended periods of time (deployment). Deployment generally refers to shipboard duty, which may extend for 6 months or longer. In the case of both TADs and deployment, stress may be placed upon the family. Accordingly, the survey included questions which addressed the types of support resources available to the family in coping with separation anxiety and need.

Information on family support resources used, as well as the proportion of respondents who were ever deployed or on temporary duty assignments, is portrayed in Table 10. As indicated here, the majority of officers and of enlisted personnel had experienced both deployment and TADs. However, there was no significant difference between those who had or had not had TAD experiences and the proportion of officers leaving and staying in the Navy. Deployment was also not significant in the retention behavior of either officers or enlisted personnel. TAD experience, on the other hand, did show a significant



TABLE 10 : RETENTION BEHAVIOR AS A FUNCTION  
OF DEPLOYMENT AND TADS

PER DEPLOYED	(n)	<u>OFFICERS</u>		(n)	<u>ENLISTED PERSONNEL</u>	
		Leave %	Stay %		Leave %	Stay %
Yes	(273)	14.7	85.3	(826)	26.5	73.5
No	(99)	23.2	76.8	(391)	27.4	72.6
TYPE OF RESOURCES USED TO HELP DURING DEPLOYMENT						
None	(7)	28.6	71.4	(38)	21.1	78.9
Informal Only	(136)	14.7	85.3	(508)	26.4	73.6
Formal Only	(4)	25.0	75.0	(19)	47.4	52.6
Formal & Informal	(126)	13.5	86.5	(261)	26.1	73.9
PER TAD						
Yes	(288)	15.8	84.7	(795)	24.5	75.5
No	(84)	22.6	77.4	(422)	31.0	69.0
TYPE OF RESOURCES USED TO HELP DURING TADS						
None	(56)	17.9	82.1	(148)	28.4	71.6
Informal Only	(165)	15.2	84.8	(512)	23.0	77.0
Formal Only	(3)	33.3	66.7	(13)	38.5	61.5
Formal & Informal	(64)	12.5	87.5	(122)	24.6	75.4

RETENTION BEHAVIOR - SUMMARY OF FAMILY SEPARATION RELATIONSHIPS

Notes: Chi square values are presented for those relationships that are statistically significant at  $p \leq .05$

-- = Not Statistically Significant

DNA = Does Not Apply

<u>VARIABLE</u>	<u>OFFICERS</u>	<u>ENLISTED</u>
Deployed	--	--
Deployment Resources	--	--
TAD	--	5.64
TAD resources	--	--

difference for enlisted leavers vs. enlisted stayers. In fact, proportionately more enlisted personnel who had experienced temporary duty assignments stayed.

The types of resources used by families during deployment or TAD separation were categorized into formal and informal sources. Informal sources include relatives, civilian friends, Navy friends, etc. Formal sources represent organized resources such as Navy wives clubs, civilian churches, the chaplain, the ombudsman, civilian services, and Navy Family Service Centers. The majority of respondents had used informal services during both deployment and TAD; the next most popular category was a combination of informal and formal resources. There was no significant relationship between the type of resources used and retention behavior for either officers or enlisted personnel.

In general, the fact of family separation, as a dichotomy of no TAD or deployment experience vs. some TAD or deployment experience, was not significantly related to retention behavior. The presence or absence of any TAD experience for enlisted personnel is an exception to this statement. In this case, enlisted personnel who had not been on TADs were more likely to leave. There was no differential pattern in the use of resources for stayers and leavers, either for officers or enlisted personnel.

PCS Moves and Time Away from Family. In contrast to the findings for TAD and deployment, whether or not service members had ever experienced any PCS moves did show a consistent relationship to

retention behavior for both officers and enlisted personnel. PCS moves represent family disruption rather than family separation as families are relocated along with the service member. For both officers and enlisted personnel, those ever experiencing PCS moves were comparatively more likely to stay in the Navy (see Table 11).

Limiting the analysis to the simple presence or absence of any period of family separation (through deployment or TADs) or family disruption (through PCS moves) presents an intuitively surprising picture. Family separation and disruption either exhibit no significant relationship to retention behavior at all, or result in more service members staying! This picture is clarified, however, when the frequency of disruption and the amount of time spent away from the family are taken into account.

Table 11 presents PCS moves by frequency: never moved, infrequently, somewhat frequent, very frequent; and the proportion of time spent away from the family (whether due to deployment or TADs), using the categories of: hardly any, up to 25%, up to 50%, up to 75%, and over 75%. Turning first to the frequency of PCS moves, the "negative" effect of having never moved still stands: service members in this category are relatively more likely to leave the military. However, compared to those experiencing fewer moves (infrequently, somewhat frequently), those indicating very frequent PCS moves were more likely to leave. Thus, the distribution tends to be U-shaped with those

TABLE 11: RETENTION BEHAVIOR AS A FUNCTION OF PCS MOVES  
AND TOTAL TIME SPENT AWAY FROM FAMILY

	<u>OFFICERS</u>			<u>ENLISTED PERSONNEL</u>		
	(n)	Leave %	Stay %	(n)	Leave %	Stay %
Yes	(307)	15.0	85.0	(925)	24.4	75.6
No	(61)	27.9	72.1	(255)	33.3	66.7
<b>PCS FREQUENCY</b>						
Never Moved	(61)	27.9	72.1	(255)	33.3	66.7
Infrequently	(13)	15.4	84.6	(109)	19.3	80.7
Somewhat Frequent	(143)	11.9	88.1	(533)	22.1	77.9
Very Frequent	(151)	17.9	82.1	(283)	30.7	69.3
<b>TIME AWAY FROM FAMILY</b>						
Hardly Any	(62)	17.7	82.3	(189)	19.0	81.0
Up to 25%	(59)	10.2	89.8	(204)	23.0	77.0
25% to 50%	(105)	11.4	88.6	(325)	27.7	72.3
50% to 75%	(100)	28.0	72.0	(290)	30.3	69.7
Over 75%	(27)	11.1	88.9	(141)	29.8	70.2

RETENTION BEHAVIOR - SUMMARY OF PCS AND TIME AWAY  
FROM FAMILY RELATIONSHIPS

Chi square values are presented  
for those relationships that  
are statistically significant  
at  $p \leq .05$

-- = Not Statistically  
Significant

DNA = Does Not Apply

<u>VARIABLES</u>	<u>OFFICER</u>	<u>ENLISTED</u>
Ever PCS	5.08	7.71
PCS Frequency	7.82	16.91
Time Spent Away	13.53	9.89

at both ends (no moves, many moves) more likely to leave. The tendency for those with very frequent PCS moves to leave is much more pronounced for enlisted personnel.

Examining time spent away from the family, there is a more linear progression between the extent of time spent away from the family and the tendency to leave. Specifically, the proportion of enlisted personnel leaving increases steadily from 17% to 30% as the frequency of separation ranges from hardly any, to separation from the family around three-fourths of the time. Although this pattern is less distinct for officers, there is a similar increase in the proportion of officers leaving when the amount of time spent away from the family approaches three-quarters.

In sum, some degree of TADs, deployment, and PCS moves correspond to a higher probability of staying. Most likely, this reflects another concomitant of years of service; the longer one stays in the Navy, the more likely that one will have a TAD or PCS move. However, excessive family separation and a high frequency of family disruption are associated with leaving the military.

#### Covariate Analysis of Factors

In an effort to obtain a better understanding of the factors related to the retention decision, Analyses of Covariance (ANCOVA) were computed using each of 45 possible factors (Questio

217 to 261 in the original survey) as dependent variables, and Officer/Enlisted and Retention Behavior as the two independent variables. Years of Service was used as a covariate because it may act as a proxy variable, subsuming within itself a number of other relationships such as family size, age of oldest child, job satisfaction, type of housing, and the amount of fixed monthly expenses, all of which change with increased age.

Table 12 shows the results of these analyses. The first column lists the dependent variables in the order that they appeared on the questionnaire. The next three columns indicate whether or not the particular variable or interaction term was statistically significant at the .05 level. This is followed by a column that indicates the significance of the covariate in explaining the variance in the dependent variables, along with a listing of the unstandardized beta coefficients if the covariate is statistically significant. The final column shows the total amount of variation in the dependent variable explained by the independent variables and the covariate simultaneously. In all cases the dependent variable was a 7 point scale (1=Extremely Important for Staying, 4=Not a Factor, and 7=Extremely Important for Leaving).

For every factor, there was a statistically significant difference as a function of retention behavior, even taking Years of Service into account. Secondly, there was a significant difference between officers and enlisted personnel for

TABLE 12: COVARIATE ANALYSIS OF RETENTION BEHAVIOR FACTORS

	<u>Officer/ Enlisted</u>	<u>Retention Behavior</u>	<u>Interaction</u>	<u>Years of Service</u>	<u>R<sup>2</sup></u>	
1. Spouse's Attitude Toward Navy	-	*	-	-.10*	.16	
2. Spouse's Career	-	*	-	-.02*	.06	
3. Total Family Income	*	*	-	-.08*	.15	
4. Bonuses for Reenlistment	-	*	*	--	.04	
5. Financial Benefits	-	*	-	-.05*	.08	
6. Promises of Training	*	*	-	-.02*	.07	
7. Promises of Assignment	-	*	-	-.04*	.09	
8. Choice of Assignment	*	*	-	-.04*	.07	
9. Availability of Housing	-	*	-	-.04*	.05	
10. Cost of Housing	-	*	-	-.05*	.07	
11. Quality of Housing	-	*	-	-.03*	.06	
12. Satisfaction with Navy Job	*	*	-	-.08*	.13	
13. Job Regulations	-	*	-	-.06*	.10	
14. Other Navy Rules	*	*	*	-.07*	.11	
15. Challenge of Navy Job	*	*	-	-.06*	.12	
16. Use of Personnel Skills in Job	-	*	-	-.07*	.11	
17. Civilian Job Benefits	-	*	-	-.08*	.11	
18. Civilian Job Opportunities	*	*	-	-.07*	.11	
19. Availability of Transportation	-	*	-	-.02*	.03	
20. Cost of Transportation	-	*	*	-.02*	.03	
21. Quality of Transportation	-	*	*	-.02*	.03	
22. Satisfaction With Social Support	*	*	-	-.03*	.07	
23. Supervisor Support	*	*	-	-.05*	.06	
24. Co-worker Support	*	*	-	-.03*	.06	
25. Support from Relatives	*	*	-	-.03*	.07	
26. Support from Friends	*	*	-	-.03*	.06	
27. Overall Time Spent with Family	*	*	-	-.09*	.10	
28. Family Separations Due to Deployment	*	*	-	-.07*	.06	
29. Family Separations Due to TAD and other reasons	-	*	-	-.04*	.04	
30. PCS Moves	-	*	-	-.03*	.04	
31. Reimbursement for PCS Moves	-	*	-	-.02*	.02	
32. Frequency of PCS Moves	*	*	-	-.02*	.02	
33. Stress from PCS Moves	-	*	-	-.02*	.01	
34. Availability of Navy Family Services	-	*	-	-.02*	.02	
35. Quality of Navy Family Services	-	*	-	-.02*	.02	
36. Cost of Medical Care	-	*	-	--	.05	
37. Availability of Medical Care	-	*	*	-.02*	.05	
38. Quality of Medical Care	-	*	-	-.03*	.05	
39. Cost of Child Care	-	*	-	--	.02	
40. Availability of Child Care	-	*	-	--	.02	
41. Quality of Child Care	-	*	-	--	.02	
42. Children's Schooling	-	*	-	-.02*	.04	
43. Cost of Counseling Services	-	*	-	--	.01	
44. Availability of Counseling Services	-	*	-	--	.01	
45. Quality of Counseling Services	-	*	-	--	.01	

some of the dependent variables, including total family income, promises of training, choice of assignment, satisfaction with the Navy job, challenge of the Navy job, civilian job opportunities, satisfaction with social support, all of the specific support sources, overall time spent with family, family separations due to deployments, and frequency of PCS moves. Interaction effects are evident for a few variables, including bonuses for reenlistment, the cost and quality of transportation, and the availability of medical care.

An examination of the effects of the covariate indicates that Years of Service has a powerful effect on this set of dependent variables. Its strongest effect is in explaining the spouse's attitude toward the Navy. In general, the longer the respondent has been in the Navy, the more positive the spouse's attitude is toward staying in the Navy.

The amount of variance accounted for by any set of variables can be interpreted as an indication of that set's explanatory power. The R-squared figure in the right-most column of Table 12 represents the amount of variance accounted for by the three variables used in the analysis. It can be seen that this set of variables (and the interaction term) results in varying degrees of explanatory power. The highest  $R^2$  value, .16, is related to spouse's attitude toward the Navy, followed by total family income (.15), satisfaction with Navy job (.13), and



challenge of Navy job (.12). Other variables which exceed 10% are: use of skills in job, civilian job benefits, and civilian job opportunities.\*

It is interesting to note that these same independent variables explain a much higher proportion of variation for retention intent (up to 40%) than for behavior. As will be seen in later sections, this is also reflected in the results of the path analysis.

In an attempt to gain still another perspective on the factors related to retention behavior, the mean ratings of importance were computed for all 45 factors, separately for those who left and those who stayed. This was done for both officer and enlisted personnel. Tables 13, 14, 15 and 16 summarize the results, ranking the factors from most to least positive.

It can be seen that for those who stayed, job related factors were given a positive rating as was spouse's attitude toward the Navy (Tables 13 and 14). For those who stayed, the civilian alternative tended to be only moderately attractive.

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\*The relative effect of the civilian alternative was to have been investigated further in this study. See the last section of this report, Epilogue.

TABLE 13: RETENTION FACTORS IN ORDER OF IMPORTANCE  
FOR OFFICERS WHO STAYED

<u>Question</u>		<u>Mean Rating</u>
1.	Q 231 Challenge of Navy Job	2.73
2.	Q 228 Satisfaction with Navy Job	2.94
3.	Q 232 Use of Personal Skills in Job	3.01
4.	Q 223 Promises of Assignment	3.10
5.	Q 252 Cost of Medical Care	3.16
6.	Q 217 Spouse's Attitude Toward Navy	3.23
7.	Q 222 Promises of Training	3.25
8.	Q 240 Co-workers Support	3.25
9.	Q 224 Choice of Assignment	3.34
10.	Q 241 Support From Relatives	3.46
11.	Q 221 Financial Benefits	3.48
12.	Q 253 Availability of Medical Care	3.53
13.	Q 239 Supervisor Support	3.56
14.	Q 242 Support from Friends	3.61
15.	Q 220 Bonuses for Reimbursement	3.67
16.	Q 219 Total Family Income	3.70
17.	Q 254 Quality of Medical Care	3.73
18.	Q 225 Availability of Housing	3.75
19.	Q 227 Quality of Housing	3.75
20.	Q 229 Job Regulations	3.76
21.	Q 238 Satisfaction With Social Support	3.77
22.	Q 255 Cost of Child Care	3.78
23.	Q 218 Spouse's Career	3.79
24.	Q 257 Quality of Child Care	3.81
25.	Q 256 Availability of Child Care	3.83
26.	Q 226 Cost of Housing	3.84
27.	Q 230 Other Navy Rules	3.90
28.	Q 235 Availability of Transportation	3.90
29.	Q 261 Quality of Counseling Services	3.90
30.	Q 237 Quality of Transportation	3.91
31.	Q 250 Availability of Navy Family Services	3.91
32.	Q 259 Cost of Counseling Services	3.91
33.	Q 260 Availability of Counseling Services	3.91
34.	Q 251 Quality of Navy Family Services	3.92
35.	Q 236 Cost of Transportation	3.93
36.	Q 258 Childrens Schooling	3.95
37.	Q 247 Reimbursement of PCS Moves	4.22
38.	Q 246 PCS Moves	4.27
39.	Q 248 Frequency of PCS Moves	4.29
40.	Q 249 Stress from PCS Moves	4.41
41.	Q 245 Family Separations (TADs, etc.)	4.54
42.	Q 233 Civilian Job Benefits	4.61
43.	Q 234 Civilian Job Opportunities	4.64
44.	Q 243 Overall Time Spent With Family	4.90
45.	Q 244 Family Separations Due to Deployment	5.25

TABLE 14: RETENTION FACTORS IN ORDER OF IMPORTANCE  
FOR ENLISTED PERSONNEL WHO STAYED

<u>Question</u>		<u>Mean Rating</u>
1. Q 224	Choice of Assignment	2.92
2. Q 228	Satisfaction With Navy Job	2.94
3. Q 232	Use a Personnel Skill in Job	2.95
4. Q 231	Challenge of Navy Job	2.97
5. Q 223	Promises of Assignment	3.01
6. Q 252	Costs of Medical Care	3.01
7. Q 217	Spouse's Attitude Toward Navy	3.07
8. Q 253	Availability of Medical Care	3.30
9. Q 221	Financial Benefits	3.34
10. Q 222	Promises of Training	3.46
11. Q 240	Co-Worker Support	3.50
12. Q 241	Support from Relatives	3.52
13. Q 239	Supervisor Support	3.57
14. Q 254	Quality of Medical Care	3.58
15. Q 225	Availability of Housing	3.60
16. Q 229	Job Regulating	3.61
17. Q 227	Quality of Housing	3.63
18. Q 226	Cost of Housing	3.66
19. Q 218	Spouse's Career	3.67
20. Q 219	Total Family Income	3.67
21. Q 242	Support from Friends	3.67
22. Q 220	Bonuses for Reenlistment	3.69
23. Q 258	Children's Schooling	3.71
24. Q 255	Cost of Child Care	3.76
25. Q 235	Availability of Transportation	3.81
26. Q 257	Quality of Child Care	3.81
27. Q 256	Availability of Child Care	3.82
28. Q 259	Cost for Counseling Services	3.83
29. Q 236	Cost of Transportation	3.84
30. Q 260	Availability of Counseling Services	3.84
31. Q 230	Other Navy Rules	3.85
32. Q 237	Quality of Transportation	3.85
33. Q 261	Quality of Counseling Services	3.85
34. Q 251	Quality of Navy Family Services	3.87
35. Q 250	Availability of Navy Family Services	3.89
36. Q 238	Satisfaction With Social Support	3.90
37. Q 247	Reimbursement for PCS moves	4.00
38. Q 246	PCS Moves	4.06
39. Q 248	Frequency of PCS Moves	4.06
40. Q 233	Civilian Job Benefits	4.13
41. Q 234	Civilian Job Opportunity	4.13
42. Q 249	Stress from PCS Moves	4.25
43. Q 243	Overall Time Spent With Family	4.31
44. Q 245	Family Separations (TAD, etc.)	4.38
45. Q 244	Family Separations (Deployments)	4.82

TABLE 15: RETENTION FACTORS IN ORDER OF IMPORTANCE  
FOR OFFICERS WHO LEFT

<u>Question</u>		<u>Mean Rating</u>
1. Q 244	Family Separations Due to Deployments	5.90
2. Q 243	Overall Time Spent With Family	5.86
3. Q 234	Civilian Job Opportunities	5.65
4. Q 233	Civilian Job Benefits	5.60
5. Q 217	Spouse's Attitude Toward Navy	4.92
6. Q 248	Frequency of PCS Moves	4.90
7. Q 246	PCS Moves	4.90
8. Q 219	Total Family Income	4.81
9. Q 245	Family Separations (TADs, etc.)	4.73
10. Q 249	Stress from PCS Moves	4.62
11. Q 218	Spouse's Career	4.60
12. Q 247	Reimbursement for PCS Moves	4.51
13. Q 232	Use of Personal Skills in Job	4.51
14. Q 226	Cost of Housing	4.43
15. Q 230	Other Navy Rules	4.42
16. Q 228	Satisfaction with Navy Job	4.41
17. Q 254	Quality of Medical Care	4.40
18. Q 221	Financial Benefits	4.30
19. Q 223	Promises of Assignment	4.30
20. Q 229	Job Regulations	4.27
21. Q 258	Children's Schooling	4.25
22. Q 227	Quality of Housing	4.23
23. Q 224	Choice of Assignment	4.19
24. Q 238	Satisfaction with Social Support	4.17
25. Q 225	Availability of Housing	4.17
26. Q 239	Supervisor Support	4.14
27. Q 251	Quality of Navy Family Services	4.06
28. Q 235	Availability of Transportation	4.03
29. Q 257	Quality of Child Care	4.02
30. Q 237	Quality of Transportation	4.02
31. Q 236	Cost of Transportation	4.02
32. Q 220	Bonuses for Reenlistment	4.02
33. Q 242	Support from Friends	4.00
34. Q 261	Quality of Counseling Services	3.98
35. Q 256	Availability of Child Care	3.97
36. Q 253	Availability of Medical Care	3.97
37. Q 250	Availability of Navy Family Services	3.97
38. Q 260	Availability of Counseling Services	3.95
39. Q 259	Cost of Counseling Services	3.94
40. Q 241	Support from Relatives	3.92
41. Q 255	Cost of Child Care	3.90
42. Q 222	Promises of Training	3.90
43. Q 240	Co-Worker Support	3.84
44. Q 231	Challenge of Navy Job	3.84
45. Q 252	Cost of Medical Care	3.52

TABLE 16: RETENTION FACOTRS IN ORDER OF IMPORTANCE  
FOR ENLISTED PERSONNEL WHO LEFT

<u>Question</u>		<u>Mean Rating</u>
1. Q 243	Overall Time Spent With Family	5.75
2. Q 244	Family Separations Due to Deployments	5.69
3. Q 234	Civilian Job Opportunities	5.61
4. Q 233	Civilian Job Benefits	5.55
5. Q 219	Total Family Income	5.37
6. Q 245	Family Separations (TADs, etc.)	5.09
7. Q 230	Other Navy Rules	4.85
8. Q 246	PCS Moves	4.67
9. Q 254	Quality of Medical Care	4.63
10. Q 217	Spouse's Attitude Toward Navy	4.62
11. Q 220	Bonuses for Reenlistment	4.59
12. Q 247	Reimbursement for PCS Moves	4.58
13. Q 226	Cost of Housing	4.58
14. Q 238	Satisfaction with Social Support	4.55
15. Q 229	Job Regulations	4.55
16. Q 248	Frequency of PCS Moves	4.53
17. Q 221	Financial Benefits	4.50
18. Q 249	Stress from PCS Moves	4.49
19. Q 227	Quality of Housing	4.45
20. Q 228	Satisfaction with Navy Job	4.40
21. Q 258	Children's Schooling	4.36
22. Q 239	Supervisor Support	4.36
23. Q 222	Promise of Training	4.35
24. Q 236	Cost of Transportation	4.30
25. Q 223	Promise of Assignment	4.30
26. Q 253	Availability of Medical Care	4.29
27. Q 237	Quality of Transportation	4.28
28. Q 241	Support from Relatives	4.27
29. Q 225	Availibility of Housing	4.27
30. Q 242	Support from Friends	4.26
31. Q 218	Spouse's Career	4.26
32. Q 235	Availability of Transportation	4.25
33. Q 250	Availability of Navy Family Services	4.23
34. Q 257	Quality of Child Care	4.21
35. Q 251	Quality of Navy Family Services	4.20
36. Q 256	Availability of Child Care	4.18
37. Q 255	Cost of Child Care	4.18
38. Q 232	Use of Personal Skills in Job	4.11
39. Q 261	Quality of Counseling Services	4.08
40. Q 259	Cost of Counseling Services	4.08
41. Q 224	Choice of Assignment	4.08
42. Q 260	Availability of Counseling Services	4.07
43. Q 240	Co-workers Support	4.06
44. Q 231	Challenge of Navy Job	3.99
45. Q 252	Cost of Medical Care	3.89

Conversely, for those who left (Tables 15 and 16), family separation factors and spouse's attitude tended to be rated more negatively, job related factors are given more neutral ratings, and the civilian alternative appears to be more attractive.

#### Aggregate Correlates of Retention Behavior

The next logical step in considering the relationship of individual survey items to the retention decision is to combine related items into variable constructs. The questionnaire contained items which were expected to form scales representing five scaled constructs:

- o Family/Navy Satisfaction
- o Job Satisfaction
- o Social Support
- o Pay Satisfaction
- o Marital Satisfaction

Items for any one scale appeared as a block in the questionnaire although they were not explicitly identified as potential scale items. Since the major objectives of the survey did not include rigorous psychometric scale construction, no attempt was made to disperse a set of scale items randomly throughout the questionnaire.

Three steps were usually involved in the creation of each scale:

- o Assessing a scale's dimensionality through factor analysis
- o Estimating reliability coefficients for the scale and any subscales emerging from the factor analysis.
- o Computing scale scores for each individual.

All five scales, their subscales, and their alpha values are presented in Table 17. Each scale and subscale is described separately below.

Scale 1: Family/Navy Satisfaction. Sixteen questionnaire items were hypothesized to form a scale that would indicate the degree to which a respondent was satisfied with the resolution of possible conflicting demands involving family and Navy life (questions 71 through 86 in the questionnaire). These items were submitted to a factor analysis procedure, using principle components factoring and varimax rotation of the resulting factors. Only those individuals answering all sixteen items were used in the analysis.

Table 18 summarizes the questions included in this scale. It was found that these items formed three major factors contributing to Family/Navy satisfaction and accounting for 57.3% of the variance among the items. These factors were:

- o Navy Treatment of Family. This factor accounted for the largest portion of variance among the items (33.4%). Examination of the individual items shows it to be somewhat of an all-encompassing factor that includes family treatment, family support, and satisfaction with Navy life.

TABLE 17: SUBSCALES AND RELIABILITY COEFFICIENTS  
FOR FIVE SATISFACTION SCALES

<u>of Scale and Subscale</u>	<u>Scale and Subscale Alphas</u>
ly/Navy Satisfaction	.86
1. Navy Treatment of Family	.87
2. Family/Navy Conflict	.77
3. Spousal Support of Navy Career	.79
Satisfaction	.83
1. Job Satisfaction	.86
2. Coworker Satisfaction	.64
3. Career Satisfaction	.83
al Support	.93
Satisfaction	.77
tal Satisfaction	.86
1. Marital Satisfaction	.87
2. Satisfaction with Spouse	.72
3. Satisfaction with Children	.33



TABLE 18: QUESTIONS INCLUDED IN THE FAMILY/NAVY SATISFACTION SCALE

<u>Subscale</u>	<u>Items</u>
1. Navy Treatment of Family (FNSAT)	<p>My concern for my family makes it more likely that I will leave the Navy soon.</p> <p>All things considered, I am satisfied with my life in the Navy.</p> <p>Because the Navy provides so many benefits for my family, I plan to stay in the Navy.</p> <p>My family encourages me to stay in the Navy.</p> <p>My family wants me to leave the Navy because its demands interfere with family life.</p> <p>All in all, I am satisfied with the way the Navy treats my family.</p>
2. Family/Navy Conflict (FNCON)	<p>The demands of the Navy are frequently hard to combine with the demands of my family.</p> <p>When I have conflicts between my Navy duties and my family duties, I usually just feel frustrated and can't do anything about it.</p> <p>The demands of my Navy job interfere with my family life.</p> <p>After I get home, I spend a lot of time thinking about the problems and frustrations of my job.</p> <p>Many times the Navy and my family pull me in opposite directions.</p> <p>When I run into conflicts between my Navy responsibilities and my family responsibilities, I usually find a way to handle it all right.</p>
3. Spousal Support of Navy Career (SPOSUP)	<p>My spouse does many things that help me carry out my Navy duties.</p> <p>I get a lot of understanding from my spouse when things are not going well on the job.</p> <p>My spouse is not interested in my work.</p> <p>My spouse hardly ever gets involved in activities that are helpful to my Navy career.</p>

- o Family/Navy Conflict. Accounting for the next largest amount of variance (14.1%), this factor highlights the perception of competing demands placed by family and Navy and their consequent resolution.
- c Spousal Support for Navy Career. This factor accounts for the smallest proportion of variance among the items (9.8%). It highlights the effect and support of the spouse on performing Navy duties and activities.

Reliability coefficients (e.g., Cronbach's alpha) were computed for each of the three factors and for all sixteen items combined (refer to Table 17). Treated as scaled constructs, each of the three factors had moderate to high alphas. The whole scale (i.e., all sixteen items) also had a moderately high alpha (.86). Because the alpha was more than adequate, the entire scale was used in later analyses rather than the individual subscales.

Scale 2: Job Satisfaction. Nine items were hypothesized to form a scale indicating the extent to which a respondent was satisfied with his or her job and career in the Navy (items 31 through 139 in the questionnaire). Table 19 identifies these questions. Factor analysis of the nine items revealed three factors accounting for 69.5% of the variance among the nine items. These factors were:

- o Job Satisfaction. This factor accounted for 43.7% of the variance among the nine items. The items loading on this factor are indicative of a respondent's personal satisfaction with his or her job.
- o Co-worker Satisfaction. This factor accounted for 13.5% of the variance. It is concerned with the satisfaction a respondent feels about his or her social environment at work.

TABLE 19: QUESTIONS INCLUDED IN THE JOB SATISFACTION SCALE

<u>Subscale</u>	<u>Items</u>
1. Job Satisfaction (JOBSAT)	<p>All in all, how satisfied are you with your job?</p> <p>All in all, how satisfied are you with the sense of accomplishment you get from your job?</p> <p>Do you feel your present Navy job is interesting to you?</p> <p>Do you feel your Navy job is important to the Navy's overall mission?</p>
2. Coworker Satisfaction (WORKSAT)	<p>All in all, how satisfied are you with your supervisor?</p> <p>All in all, how satisfied are you with the people in your work group?</p> <p>All in all, how satisfied are you with this command, compared to others?</p>
3. Career Satisfaction (CARSAT)	<p>All in all, how satisfied do you feel with the career progress you have made in the Navy up to now?</p> <p>How satisfied do you feel with your chances at getting ahead in the Navy in the future?</p>

- o Career Satisfaction. This factor accounted for 12.3% of the variance.

Cronbach's alpha was computed for each factor as a subscale, and for all nine items treated as a unidimensional scale. The alphas were moderate (.64 for co-worker satisfaction) to high (.86 for job satisfaction). Because of the high total scale alpha, the entire scale was used in the analyses that are described.

Scale 3: Satisfaction with Social Support. Ten items were hypothesized to form a scale indicating the degree to which a respondent was satisfied with support provided by co-workers and supervisors in the areas of work performance and family matters (Items 150 to 159 in the questionnaire). These questions are presented in Table 20. Factor analysis revealed all items loading on one factor which accounted for 62.5% of the variance among the items. Reliability analysis resulted in an alpha of .93, the highest alpha among all of the scales discussed here.

Scale 4: Pay Satisfaction. As has been evident from the tabular results previously discussed, pay and financial benefits are important aspects of the Navy experience. Three items in the survey were hypothesized to form a scale indicating the extent to which a respondent felt satisfied with his or her pay. Table 21 identifies these items. These three items, not surprisingly, formed a unidimensional factor accounting for 68.6% of the variance. Cronbach's alpha for the scale was .77, a moderate value.

TABLE 20: QUESTIONS INDLUDED IN THE SOCIAL SUPPORT SATISFACTION SCALE

<u>Subscale</u>	<u>Items</u>
Satisfaction with Social Support (SOCSUP)	All in all, I am satisfied with the helpfulness of my supervisor.
	All in all, I am satisfied with the helpfulness of my coworkers.
	My supervisor often knows who I should see or where I should go to solve personal or family problems.
	My supervisor gives me some leeway at work if he/she knows I am having a personal or family problem.
	I can count on the people at work to help me out, if they can, when I have family problems.
	My supervisor is a sympathetic listener when I have a personal or family problem.
	The people I work with help me figure out where to go or who to talk to when I have a personal or family problem.
	My supervisor lets me take time off when necessary to do things for my spouse and children.
	It's easy to talk over family or personal problems with the people I work with.
	The people I work with make it easy to make changes in work routines to make things easier for my family.

TABLE 21: QUESTIONS INCLUDED IN THE PAY SATISFACTION SCALE

Subscale

Items

Pay Satisfaction  
(PAYSAT)

Not counting any income from an outside job, would the rest of your total family income permit you to live as comfortably as you would like?

Not counting any income from an outside job or jobs, would the rest of your total family income meet your monthly expenses?

Taking everything into account how satisfied are you with the pay and financial benefits and allowances (e.g., BAS, BAW) that you receive from the Navy?

Scale 5: Marital Satisfaction. Nine items were hypothesized to form a scale indicating the extent to which a respondent felt satisfied with his or her marriage (items 58 through 66 of the questionnaire). Table 22 presents these questions.

Factor analysis revealed three factors accounting for 67.4% of the variance among the nine items. These factors were:

- o Marital Satisfaction, accounting for 43.9% of the variance.
- o Communication with Spouse, accounting for 12.2% of the variance.
- o Satisfaction with Children, accounting for 11.3% of the variance.

Alpha coefficients computed for the three consequent subscales revealed one subscale (Satisfaction with Children) with a reliability too low to be used in the analysis. The alpha for the complete scale comprised of only the first two factors was .86. This was used in subsequent analyses.

Significant Differences. Mean ratings for the five scales by those staying and those leaving are presented in Table 23. Tabulations are separate for officers and enlisted personnel. The t values, and level of significance, are also presented for those means which demonstrated a significant difference.

Pay satisfaction and marital satisfaction scores were not significantly different for those who stayed vs. those who

TABLE 22: QUESTIONS INCLUDED IN THE MARITAL SATISFACTION SCALE

<u>Subscale</u>	<u>Items</u>
1. Marital Satisfaction (SPOUSAT)	<p>Are you satisfied with the companionship of your spouse?</p> <p>Taking everything into account, are you satisfied with your marriage?</p> <p>Are you satisfied with the sexual relationship with your spouse?</p> <p>Taking everything into account, how satisfied are you with the management of your household?</p>
2. Communication with Spouse (COMSPO)	<p>How often do you confide in your spouse about matters that are important to you?</p> <p>How would you characterize the communication that you have with your spouse?</p> <p>How important is communication for you in your relationship with your spouse?</p>
3. Satisfaction with Children (CHILDSAT)	<p>All in all how satisfied are you with your relationship with your children? (If you have no children, leave blank.)</p> <p>How often are your children a source of stress to you and your spouse?</p>



TABLE 23: AGGREGATE CORRELATES OF RETENTION BEHAVIOR  
FOR OFFICERS AND ENLISTED PERSONNEL

SCALE		OFFICERS		ENLISTED	
		<u>Leave</u>	<u>Stay</u>	<u>Leave</u>	<u>Stay</u>
Pay Satisfaction	$\bar{X}$	8.9	8.2	6.0	6.1
	S.D.	2.6	2.4	2.0	2.0
	n	(60)	(299)	(306)	(865)
	t	--		--	
Marital Satisfaction	$\bar{X}$	32.5	32.3	31.7	31.6
	S.D.	4.1	3.7	4.4	4.1
	n	(61)	(295)	(289)	(800)
	t	--		--	
Navy Family Life	$\bar{X}$	61.6	70.3	57.9	69.9
	S.D.	13.7	15.5	14.7	17.9
	n	(54)	(264)	(248)	(697)
	t	4.16, $p < .001$		10.43, $p < .001$	
Job Satisfaction	$\bar{X}$	14.3	15.9	14.2	15.5
	S.D.	4.6	3.9	4.1	3.9
	n	(63)	(303)	(308)	(858)
	t	2.58, $p < .01$		4.81, $p < .001$	
Social Support	$\bar{X}$	44.5	44.5	41.1	44.0
	S.D.	12.8	12.6	14.0	13.5
	n	(62)	(298)	(313)	(857)
	t	--		3.17, $p < .01$	

left. This was true for both officers and enlisted personnel. Those scales that did show significant differences were:

- o Navy Family Life
- o Job Satisfaction
- o Social Support (enlisted personnel only)

In each case, those that left were more dissatisfied with Navy/family life, their Navy job, and social support. These factors play a further role in the path analysis. As discussed subsequently in the section on path analysis, those two scales that show a significant difference for both officers and enlisted personnel, i.e., Navy family life and job satisfaction, demonstrate a direct effect on retention intent.

#### Path Analysis of Retention Behavior

One of the major goals and accomplishments of the first study was the development and estimation of a path-analysis model predictive of retention intent. Path analysis allows the measurement of the simultaneous effects of a number of variables on the dependent variable. The first study identified four variables having direct effects on retention intent:

- o Opinion of the spouse
- o Navy family satisfaction
- o Job satisfaction
- o Years of service

Two of these variables, opinion of spouse and years of service, had significant indirect effects as well. Additional variables with significant indirect effects were:

- o Social Support from coworker
- o Satisfaction with Navy services
- o Marital satisfaction
- o Satisfaction with family separation

One of the major objectives of this study was to refine that path model, as well as to extend it to include retention behavior. Path analysis typically includes three distinct phases:

- o The selection of variables
- o The consideration of scales and composite studies
- o Model estimation and testing

Much of this work was already done in the first study, and it will only be briefly described here. The reader is referred to the first report for the details (Szoc, 1982). Model estimation and testing is a process whereby the original path analysis is replicated using the survey data, and the path including behavior is added.

The organization of this section is as follows. First the variables used in the path analysis are described. With a few exceptions, these are identical to those used in the first study. Secondly, the results of the path analysis are presented.

Because 175 respondents (who returned their surveys after the closing date of the first study) have been added, the path estimates are not necessarily identical to those in the first survey, as they ordinarily would be. Thirdly, the path model is decomposed into its direct and indirect components. Finally, a discriminant analysis is presented that indicates the relative power of the path model in predicting retention behavior. The exact mechanics of this are described more completely in the section devoted to it.

Variables in the Path Model. In order to estimate the path model, the following variables were used to represent certain generic variable categories:

- o Demographic Variables. The variables used to represent this construct were Years of Service, Officer/Enlisted, Sex, and Race. A number of other possible variables were excluded. For example, the age and education of spouses frequently matched those of the respondents; it was felt that no additional explanatory power would be gained by using them. Years of service and Officer/Enlisted were highly related to respondents' age, term of enlistment, and educational background. These latter three were thus excluded from the path analysis.
- o Household Variables. Two variables were used to represent this construct: number of children and age of youngest child. The age of youngest child is frequently used as a surrogate measure of life cycle. This is a re-specification from the first study, which used age of oldest child. Other potential variables such as single-parenting and dual-career couples were excluded from this construct because of their lack of representativeness in the survey sample.
- o Job Characteristics. Three variables were felt to adequately represent this construct:

the number of hours worked per week; whether the job involved mostly supervising others or directly performing a job; and the amount of perceived social support from co-workers.

- o Marriage and Family Variables. Two variables were chosen to represent indicants of family relationships and family pressure on retention behavior. The first was a composite dichotomous variable noting whether or not the couple was in a traditional marriage. This was derived from three questions on the survey: who was responsible for child care, who was responsible for household management, and who was responsible for important decisions. Families that defined these tasks along traditional gender lines were classified as "traditional." The other variable used in this category was the opinion of the spouse. This emerged as an extremely powerful variable relating to retention intent in the first study.
- o Financial Status. Financial status was denoted by a respondent's total income and by a respondent's fixed monthly expenses.
- o Family Service Use. One variable was constructed to indicate family service use. It is meant to be an approximation of actual use because the questionnaire did not contain items assessing actual use. To compute this variable, certain items in Section XIV of the survey form were examined to see whether they referred to a service provided by the Navy for a Navy member and his or her dependents (items 194, 195, 196, 200, 201, 202, 203, 204, 205, 206, 207, 209, 210, 211, 213). Service use was represented by the number of these items for which the respondent gave at least some rating, rather than "Does Not Apply."
- o Family Service Quality. This construct was represented by two variables. The first was formed by taking the number of items indicating Service Use (previously described) for which a rating of "Very" or "Somewhat Satisfied" was given. The second was the number of PCS problems mentioned. The first variable is an approximation because it is possible that respondents may have rated a particular service even with little or no direct experience with it. In this sense, it may be a statistically "noisy" variable.

- o Scales. The attitudinal components in the path model were represented by five scales. The development of and the reliability of these scales have been discussed in a previous section. The scales were: marital satisfaction, pay satisfaction, job satisfaction, satisfaction with family separation, and satisfaction with Navy/family life.
- o Retention Intent. In the first study, this was the orientation variable for the path model. In this study, of course, it is the final and singular link between all of the prior variables and retention behavior.

In summary, the path model being estimated here is similar to the path model previously reported with the addition of retention behavior as the main dependent variable.

Estimating the Path Model. Specification of the path model (i.e., positing the causal relationships among variables) may be likened to the drawing up of architectural blueprints, while estimating the model may be equivalent to building the structure. Basically, the mechanics of path analysis involve the computation of a series of regression equations, where the equation consists of a given variable in the model as the dependent variable and all the logically or theoretically prior variables as independent variables. The regression beta weights are interpreted as path coefficients. Analysis proceeds from left to right in the model, with the final regression consisting of the main variable of interest (retention behavior in this case) as the dependent variable, and all of the prior variables as independent variables.

The results of the path analysis are summarized in Table 24. Since Table 24 is fairly complex, its layout will be completely described. The left-most column is a listing of all the variables hypothesized to contribute to retention behavior. To the right are eighteen columns or coefficients labeled with a number. Each column is associated with a particular variable in the model denoted by the numeric label. The first four variables (the demographics) do not have columns associated with them because there are no variables causally prior to them. The numbers listed in a particular column are the path coefficients estimated by a regression equation involving the variables associated with those coefficients as independent variables and the variable associated with that column as the dependent variable. For example the column labeled "5" is the column associated with the fifth causal variable, "Number of Children." The four numbers are the path coefficients estimated by regressing the four demographic variables on the variable "Number of Children," because the demographic variables are causally related and prior to "Number of Children." The double dashes in the column signify the fact that the remaining variables were not part of the causal set for this series of paths, and their path coefficients were not computed. The two numbers at the bottom of each column show the amount of variance accounted for by the implied regression equation ( $R^2$ ). The same quantity is also provided, adjusted for the number of variables and the number of cases used in estimating the regression. This "adjusted  $R^2$ " is a

2. Officer/Enlisted	.09*	.06*	.17*	.16*	.07*	.07*	-.00	-.07*	-.22*	-.01	-.16*	.09	.01	-.06	-.28*	-.14*	-.01	-.09	-.13	-.097	(1589)
3. Sex	-.07*	.03*	.13*	.10*	.07*	.12*	-.03	-.02	.04	-.01	.01	-.02	-.01	-.05	.03*	-.03	.03	-.02	.03	.019	(1568)
4. White/Non-White	.03	.00	-.03	.02	.02	.07*	-.04	-.03	.05	.05	.15*	.02	-.01	-.04	.04	.05	-.00	.01	.05	.055	(1559)
5. Number of Children	--	--	--	--	--	.07*	-.05	--	.03	.45*	-.01	.07	-.02	.04	-.14*	.02	-.04	.03	-.00	.106	(1589)
6. Age of Youngest Child	--	--	--	--	--	.13*	-.04	--	.05	.03	-.02	-.08	-.03	-.02	-.01	-.02	.00	-.04	.01	.07*	(1570)
7. Hours of Work Per Week	--	--	--	--	--	--	--	--	.03	-.02	.02	.01	.07	.06*	-.09	.01	-.05	.01	.04	.018	(1532)
8. Supervisor/Non-Supervisor	--	--	--	--	--	--	--	--	.03	.04	-.05*	.03	.03	.05	.00	-.00	.01	-.03	.07	.016	(1534)
9. Social Support	--	--	--	--	--	--	--	--	.04	-.04	-.02	.20*	-.16*	.09*	.11	.03*	.50*	.19*	-.05	.077	(1530)
10. Traditional Marriage	--	--	--	--	--	--	--	--	--	--	.01	.05*	-.02	.04	-.03	.07	--	.01	-.00	-.007	(1452)
11. Opinion of Spouse	--	--	--	--	--	--	--	--	--	--	-.04	-.12*	.05	.00	-.20*	-.03	--	-.50*	-.43*	-.363	(1466)
12. Total Income	--	--	--	--	--	--	--	--	--	--	-.00	-.09*	-.10	.04	.05	.13*	--	.10	.04	.118	(1437)
13. Fixed Expenses	--	--	--	--	--	--	--	--	--	--	-.05	-.08*	.05	.03	.00	-.08*	--	-.00	-.02	.054	(1456)
14. Use of Navy Services	--	--	--	--	--	--	--	--	--	--	--	.20*	.16*	-.06	-.04	-.11*	--	-.03	.02	.098	(1567)
15. Satisfaction with Navy Services	--	--	--	--	--	--	--	--	--	--	--	--	-.01	.07	.21*	.21*	--	.21*	.05	.089	(1437)
16. Number of PCS Problems	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-.35*	--	-.11*	-.04	.05	-.015	( 280)
17. Marital Satisfaction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-.01	--	--	-.07	.01	-.006	(1445)
18. Satisfaction with Family Separation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-.03	.08	.185	( 676)
19. Satisfaction with Pay	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-.04	-.03	.042	(1520)
20. Job Satisfaction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-.01	.174	(1408)
21. Navy Family Satisfaction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-.03	.282	(1263)
22. Retention Intent	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.45*	.501	(1541)
R <sup>2</sup>		.203	.054	.103	.011	.055	.115	.435	.050	.213	.146	.121	.033	.315	.288	.275	.477	.509	.284		
R <sup>2</sup> Adjusted		.201	.051	.101	.009	.052	.111	.433	.044	.205	.137	.065	.022	.224	.279	.271	.441	.426	.156		

- Variable not part of the path

\* Beta is greater than 2 standard deviations



more conservative estimate of the amount of variance accounted for.

The next column is labeled "Behavior." This column contains the path coefficients estimated from a multiple regression equation using all the variables as predictors and retention behavior as the dependent variable. As such, the coefficients in this column may be interpreted as estimates of direct effects of the causal variables on retention behavior. The next column is labeled as "Simple R". This is the Pearson product-moment correlation between each of the causal variables and retention behavior.

The final column is labeled "N". This gives the number of cases used in the regression for that variable. It was found that a number of respondents had missing values for at least one of the variables used in the path analysis. If only those cases with values for every variable were used, the path analysis would have been estimated using a sample of approximately two hundred. Rather than basing estimates on such a small fraction of the survey sample, it was felt that the results would be more useful if all available cases were used where possible. This is sometimes referred to as a "pair-wise"\* deletion of missing values.

\*The main risk here is one of jeopardizing external validity of the results. If the "pair-wise" sample differs in significant ways from the reduced "list-wise" sample, the generalizability of the findings may be compromised. Examination of the sample sizes for each variable shows that they did not differ greatly except for the variables "Age of Oldest Child" and "Separation Satisfaction".

It should be stressed that a great deal of information is contained in this Table and the one that follows. For example, Table 24 can be read in a number of different ways, all of which are helpful in describing interrelationships among the variables. The path coefficients listed within a particular column show the contribution of causally prior variables to explaining the variation in the variable associated with that column. The path coefficients in a particular row show the contribution of the variable associated with that row to explaining variation in the (causally subsequent) variables in the model.

In the first study, the path model results were presented in four stages corresponding to the four stages of path estimation. Such an extensive discussion is not necessary here because:

- o With the identical sample from the first study, the path coefficients for all the variables up to retention intent would also be identical. The mathematical specifications are the same.
- o The focus of this study is on the behavior and emphasis should be placed more on the relationships within that variable.

In examining the path coefficients for all the variables, it would be important to assess the extent to which they have changed due to the 175 respondents added after the first study was closed. For comparison purposes, the path coefficients from the first study are presented in Table 25.

TABLE 25: SUMMARY OF PATH ANALYSIS WITH RETENTION INTENT AS THE DEPENDENT VARIABLES

INDEPENDENT VARIABLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
1. Years of Service	0.15	0.35	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00</																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

\*, Variable not part of path  
 \*\*, Beta is greater than 3 standard deviations  
 Numbers in table represent standardized beta weights  
 Numbers heading the columns refer to the number variables in the first column  
 Retention Intent: 1 Day  
 2 Subsequent  
 3 Future  
 Suspense variables are not included in the columns because there are no logical prior variables

### Comparison of Path Estimates from the First and the Present Studies.

Comparing the columns of Table 24 and Table 25, it is clear that there is very little difference between coefficients from the two studies either in magnitude or sign. This is as expected. Even for those variables that have been respecified in this study, (e.g., primary provider being replaced by traditional marriage), the patterns of coefficients are similar. Thus, the discussion of results from the first study are also valid here.

Table 26 summarizes the relationships among these variables and describes the implications of these relationships for retention intent.

Direct Effects. The column labeled "Behavior" in Table 24 gives the path coefficients associated with retention behavior after all of the previous variables have been taken into account. Examination of these coefficients reveals only one to be statistically significant: retention intent.

This is an important result. A typical finding in social psychology is that attitude or intention is the single best predictor of behavior. This finding is consistent with that notion and extends it to the point where retention intent is the only direct predictor of retention behavior.

TABLE 26: RELATIVE IMPORTANCE AND RELATIONSHIPS AMONG SIGNIFICANT VARIABLES FOR RETENTION INTENT

Variable 1: Opinion of the Spouse with regard to the retention decision is the single greatest determinant of the decision. It is influenced, in turn, by:

- o Use of services provided by the Navy for families
- o Satisfaction or dissatisfaction with separation due to deployments
- o Years of service in the Navy

Variable 2: Satisfaction with Navy/family life is the second most important factor determining retention. Other variables that influence the degree to which personnel feel conflict between the demands of Navy life and demands of the family include:

- o Age of children
- o Social support from co-workers and job supervisors
- o Satisfaction with Navy services provided to families
- o Total family income
- o Marital satisfaction

Variable 3: Satisfaction with the Navy job is the third major determinant of retention. This is influenced by:

- o Years of service in the Navy
- o Paygrade
- o Social support from co-workers
- o Satisfaction with pay and allowances

Variable 4: Years of service in the Navy is the fourth major variable. Put simply, the longer one is in the Navy, the more likely one will stay in the Navy.

This is not as simple as it may sound because this conclusion stems from a result within the context of the path model. The model emphasizes the interplay among variables, and ultimately it is this interplay that determines the behavior.

This can be illustrated by working backwards through the path model and noting the direct relationships among the variables. Table 27 illustrates this. The left hand side lists each variable in the path model. The right hand side lists those variables having significant direct effects (i.e., act as predictors of) on each variable in the model.

There are a number of important ramifications of these findings. Their explication is deferred until after we have examined the indirect effects associated with behavior.

Decomposition of Path Effects. It is statistically possible to "decompose" the path model so that direct, as well as indirect effects on the dependent variable may be determined. In this context, a direct effect is one that has a significant path to the dependent variable; an indirect effect is one that, while not having a significant direct path, contributes

TABLE 27: DIRECT EFFECTS OF PATH  
VARIABLES ON SUCCEEDING VARIABLES

<u>Variable</u>	<u>Variables Having a Direct Effect on this Variable</u>
Retention Behavior	Retention Intent
Retention Intent	Years of Service Opinion of the Spouse Job Satisfaction Satisfaction with Navy Family Life
Family/Navy Satisfaction	Social Support Opinion of Spouse Satisfaction with Navy Services Number of PCS Problems
Job Satisfaction	Social Support Officer/Enlisted
Pay Satisfaction	Officer/Enlisted Sex Number of Children Total Income Fixed Expenses Use of Navy Family Services Satisfaction with Navy Services
Satisfaction with Family Separation	Opinion of Spouse Satisfaction with Navy Services Number of PCS Problems
Marital Satisfaction	Hours Worked per Week Social Support
Number of PCS Problems	Social Support Use of Navy Services
Satisfaction with Navy Services	Officer/Enlisted Race Social Support Traditional Marriage Opinion of Spouse Total Income Fixed Expenses Use of Navy Services
Use of Navy Services	Number of Children Social Support
Fixed Expenses	Years of Service Officer/Enlisted
Total Income	Years of Service Officer/Enlisted
Opinion of Spouse	Years of Service
Traditional Marriage	Officer/Enlisted Sex Race Number of Children
Social Support	Years of Service Officer/Enlisted Sex
Supervising/Performing	Years of Service Officer/Enlisted Sex
Hours of Work Per Week	Officer/Enlisted Sex
Age of Youngest Child	Years of Service Officer/Enlisted
Number of Children	Years of Service Officer/Enlisted Sex

significantly through other (i.e., mediating or intervening) variables.\*

Calculation of indirect effects involves the estimation of two types of regression equations for each indirect effect. The first equation is the one used to estimate the path coefficients for the full model; that is, all independent variables regressed on the dependent variable, retention behavior. The resulting beta weights are estimates of each variable's direct effect on retention behavior. The second type of equation involves estimating regression coefficients for each independent variable in the model, with the variables hypothesized to mediate a particular variable removed. The difference between the two beta weights for a given variable represents the magnitude of the indirect effect.

The procedure was carried out for all of the variables in the path model summarized in Table 28. The results of the path decomposition are displayed in Table 28. The first column in that Table merely lists the variables. The second

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\*Statistical significance of indirect effects is an issue not yet resolved. Although the significance of direct path coefficients can be assessed after a fashion, the same statistical tests cannot be applied to indirect effects. Alternative methods, based on the amount of explained variation, were used as substitutes for statistical significance. These are described more fully in the text.



TABLE 28: DECOMPOSITION OF EFFECTS FOR THE PATH MODEL

Variables	Total Effect	Direct Effect	Indirect Effect	Joint/Spurious Effects
1. Years of Service	.155	.018	.191**	-.052
2. Officer/Enlisted	-.097	-.129	-.094	.126***
3. Sex	.019	.029	.022	-.032
4. White/Non-White	.055	.053	.070	-.068
5. Number of Children	.106	-.001	.062	.045
6. Age of Youngest Child	.075	.005	.016	.054
7. Hours of Work Per Week	.018	.044	-.001	-.025
8. Supervisor/Performing	.016	.070	.085	-.139***
9. Social Support	.077	-.013	.037	.033
10. Traditional Marriage	-.007	-.022	-.017	.032
11. Opinion of Spouse	-.363	-.084	-.347**	.068
12. Total Income	.118	.012	-.002	.108***
13. Fixed Expenses	.054	.022	.010	.022
14. Use of Navy Services	.098	.037	.063	-.002
15. Satisfaction with Navy Services	.089	-.037	.074	.052
16. Number of PCS Problems	-.015	.047	-.017	-.045
17. Marital Satisfaction	-.006	.012	.005	-.023
18. Satisfaction with Family Separation	.185	.081	.160**	-.056
19. Pay Satisfaction	.041	-.032	-.009	.082
20. Job Satisfaction	.174	-.015	.058	.131***
21. Navy Family Satisfaction	.282	-.029	.079	.232***
22. Retention Intent	.501	.458*	--	.043

\* Beta is greater than two standard deviations

\*\* Indirect Effect greater than .10

\*\*\* Joint/Spurious Effect greater than .10

column, labelled "Total Effect," represents the joint covariation of the independent variables with retention behavior; more simply, it is the Pearson product-moment correlation between these two variables. The next column, labelled "Direct Effect", contains the direct path coefficients associated with each independent variable. The coefficients here correspond exactly to those in the column labelled "Behavior" in Table 24. The column labelled "Indirect Effect" contains the estimates previously described. The figures in the final column, labelled "Joint/ Spurious", were obtained by the formula

$$\text{Joint/Spurious} = \text{Total Effect} \quad (\text{Direct} + \text{Indirect})$$

Conceptually, this value represents the portion of the total effect that cannot be explained through direct or indirect influence of the independent variables. In this sense, portions of these effects are due to "spurious" (i.e., those not in the model) factors. For retention intent, which has no possible indirect path, the final column represents the joint effects of that variable with previous variables in the model. For the data interpretation that follows, it must be remembered that the direct and indirect effects listed in Table 27 are in reference to the dependent variable of retention behavior. That a variable does not have a sizeable indirect effect shown in the table should not be taken as evidence that the variable has no effect at all; rather, Tables 24 and 27 must be jointly examined to assess the utility of all the variables in the model.

The statistical significance of direct effects in Table 24 was assessed by the F-tests usually applied to multiple regression coefficients. Although this is the common method, it does entail two hazards:

- o Performing multiple F-tests increases the probability that a coefficient will be found significant when it actually isn't.
- o F-tests have a built-in bias against direct effects in favor of indirect effects.

Other procedures have been suggested in order to surmount these problems, although F-tests are still predominant in the literature. There is no similar test for assessing the significance of indirect effects. Part of this is due to the fact that the actual underlying distribution of indirect effects is the subject of statistical debate. That an indirect effect is the sum of a variable number of multiplicative terms (in theory), or the difference between two beta coefficients (operationally) obscures the underlying theoretical distribution. The convention adopted here is to consider the qualitative contribution of indirect effects by denoting those indirect effects that are equal to or greater than .10 in absolute value as meaningful or sizeable. Although somewhat arbitrary, this convention does highlight those effects that are useful in explaining the model.

Examination of this table shows that three variables have sizeable indirect effects on behavior:

- o Opinion of the Spouse. This variable has been a considerably powerful one in both this study and our first study on retention, as well as the studies of others.
- o Years of Service. This same variable had both a direct and indirect effect in the first study on retention intent. The table of path coefficients shows that this variable has an influence on about half of the variables in the model.
- o Satisfaction with Family Separation. Similar to the findings for retention intent, this too makes a sizeable contribution.

The final column indicates the covariation remaining after direct and indirect effects are accounted for. This unexplained variation was greater than .10 in absolute value for the following variables:

- o Officer/Enlisted
- o Supervisor/Performer
- o Job Satisfaction
- o Family/Navy Satisfaction

In this regard, the size of the unexplained effects for the two satisfaction measures is problematic, especially given their relationship to retention intent. Part of the reason for this phenomenon may be due to the powerful relationships among these two measures, retention intent and retention behavior. It is possible that retention intent relates to behavior so as to suppress the effects of the two satisfaction measures, and thus maximize the unexplained covariation.

Summary of Path Analysis Results. The path analysis results provide an argument that is statistically sound, theoretically reasonable, and intuitively appealing. In essence they indicate that:

- o Retention intent strongly predicts retention behavior
- o Those factors influencing intention include variables indicative of the many facets of Navy life, including job factors, family life, deployment separation, pay and benefits, and family roles.
- o It is the combination of factors that ultimately determines why some stay and some leave the Navy.

A more abstract, though ultimately more powerful, implication of the path analysis is that simple bivariate explanations of retention behavior are not as complete, statistically or conceptually, as explanations that recognize the complexity inherent in a career and family decision.

Of course, some variables explain a great deal of the dependent variable by themselves. Examples include Years of Service and Opinion of the Spouse. At the same time, it is clear that these variables alone do not deepen our collective understanding of the phenomenon of retention. Rather, the deepening comes from being aware of the relationships among these variables.

Figure 5 graphically depicts the direct and indirect effects identified by the path analysis done for retention

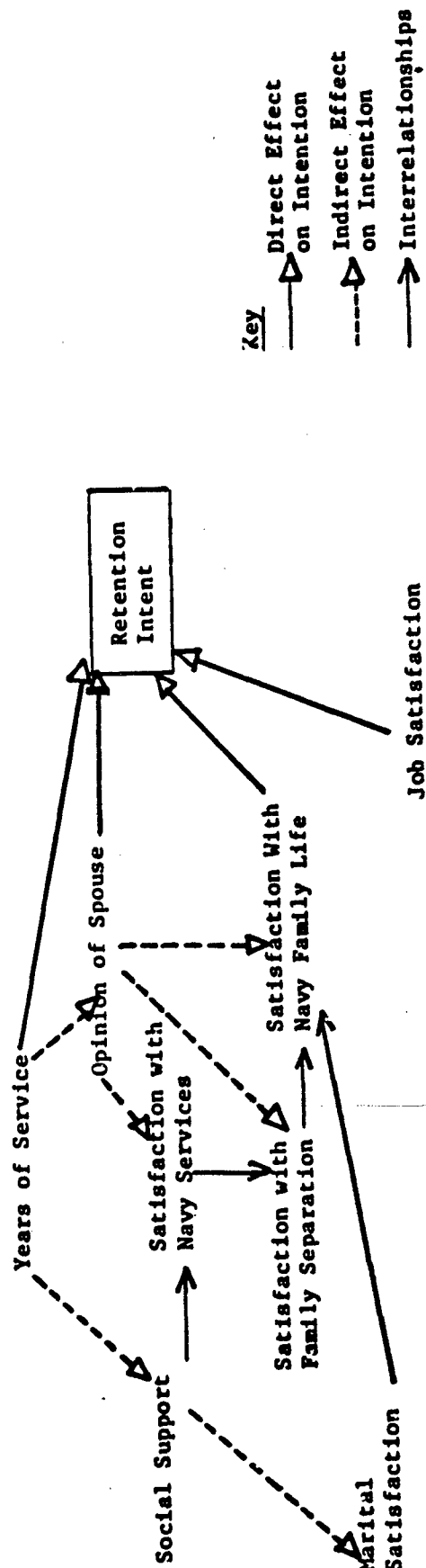
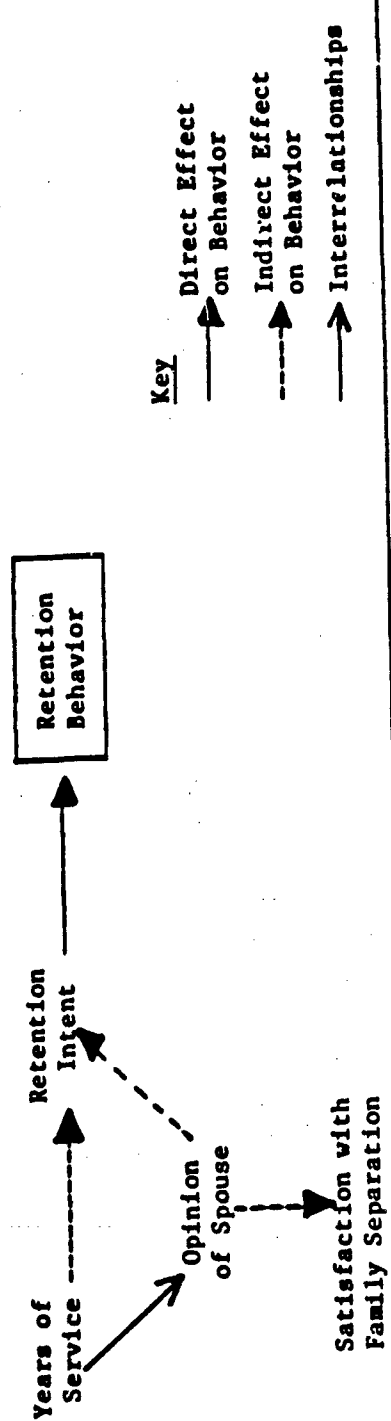


FIGURE 5: PRIMARY PATHS FOR RETENTION BEHAVIOR AND INTENT

intent (the first study) and retention behavior (the second study). They represent a simplification of the path results; yet they do illustrate the underlying complexity of the retention decision. Essentially they show the interplay among the various factors related to retention.

As the path analysis showed, the single best predictor of retention behavior is intention. However, from a policy standpoint, the more provocative results lay in findings such as the power of the opinion of the spouse and the relationships between family disruption and retention behavior. It is in such complexities of the findings that our understanding of the phenomenon is increased, and a more useful array of options can be identified.

#### Discriminant Analysis: Predicting Retention Behavior

A natural and intriguing possibility that arises is the examination of the extent to which the path model itself can be used to predict behavior. The chief utility of path analysis is the configuration of a set of hypotheses concerned with a phenomenon; as such it is an analysis that is done after the fact, so to speak. A predictive model can then be constructed using the path coefficients that could be used in predicting behavior. The validity of this can then be assessed by using it on an entirely new sample.

An alternative exists, however, that can be used to simulate this process: discriminant analysis. It is a simulation rather than an isomorphic substitute because discriminant analysis does not take into account the various hierarchical and causal connections among variates. Rather, it attempts to estimate a linear (in a mathematical sense) combination of variables that could be used to calculate the probability of membership within a group.

A discriminant analysis was conducted using the variables from the path model. Such an analysis permits the assessment of the extent to which the path variables themselves could be used to predict (as contrasted with explain) behavior.

Tables 29 and 30 present the results of the analysis. Two discriminant analyses were conducted. The first was done using all of the variables in the path model, except for retention intent. The second included retention intent. This was done in order to examine the extent to which intention increased the accuracy of the prediction, as well as the extent to which its inclusion would alter the discriminant coefficients of the other variables.

From Table 29, it can be seen that the models with intention and without are quite similar, although there are some differences to be noted.



TABLE 29: DISCRIMINANT ANALYSIS RESULTS

<u>PATH Variable</u>	<u>Discriminant Coefficients in Non-Intention Model</u>	<u>Discriminant Coefficients in Intention Model</u>
1. Years of Service	**	-.236
2. Officer/Enlisted	.703	-.350
3. Race	**	**
4. Number of Children	-.219	**
5. Life Cycle	-.338	.298
6. Hours on Job	**	**
7. Supervising or Performing	**	**
8. Co-worker Support	.272	-.198
9. Traditional Marriage	.175	**
10. Spouse's Opinion	.503	.184
11. Total Income	**	.168
12. Total Expenses	**	.130
13. Number of Services Used	**	**
14. Satisfaction with Services	**	**
15. Number of PCS problems	**	**
16. Marital Satisfaction	**	**
17. Satisfaction with Family Separation	**	**
18. Pay Satisfaction	.403	-.308
19. Job Satisfaction	-.256	**
20. Family Navy Satisfaction	-.380	.212
21. Retention Intent	--	1.007

N = 346 for both analyses

Notes:

-- not included in the analysis

\*\* dropped from discriminant function

- o Intention acts as an "enhancer" for some variables by making coefficients significant. For example, years of service has a significant effect when intention is included but not otherwise.
- o Intention acts as a "suppressor" of other variables by eliminating their significant contribution.
- o Finally, intention acts as a "reverser" of still other variables by reversing the sign of their coefficient.

Clearly, many of these variables (as the path analysis showed) are bound up in retention intent: intent then is a construct that embeds within it a number of these variables and, in a sense, is a more powerful one than any of the others in predicting behavior.

Table 30 shows the results of the prediction phase of the discriminant analysis. It should be pointed out that the discriminant function phase used data from only 346 respondents because only those with data for every discriminating variable were used. The prediction phase used about 1200 respondents using replacement of missing values with group means. Thus the prediction results are conservative estimates of the true accuracy of the discriminant functions.

If the discriminant function were no better than random prediction, then the overall correct prediction percentage would be about 50%, assuming equi-probable group classification. Table 30 shows the results to be much better than that:

- o Overall, the discriminant functions predicted correctly from 66% to 73% of the time.

TABLE 30: PREDICTION RESULTS

NON-INTENTION MODEL

<u>Actual Group</u>	(n)	<u>Predicted Group</u>	
		Leave	Stay
Leave	(234)	77.4% (181)	22.6% (53)
Stay	(805)	36.9% (297)	63.1% (508)

Overall Correct Prediction: 66.1%

INTENTION MODEL

<u>Actual Group</u>	(n)	<u>Predicted Group</u>	
		Leave	Stay
Leave	(242)	81.4% (197)	18.6% (45)
Stay	(791)	28.8% (228)	71.2% (563)

Overall Correct Prediction: 73.6%

- o Inclusion of retention intention into the discriminant function increased the accuracy of the prediction.
- o The function predicted those respondents who left much better than those who stayed.

The fact that the discriminant function was biased (i.e., predicted better for) those who left suggests that those who do leave are much more clear and definite about their reasons than those who stay. Also, the fact that a large proportion of those who were undecided about retention intent stayed may make the data for those who stay more "noisy" (by increasing the statistical variability) and thus decrease the accuracy of the prediction.

The overall results of the discriminant analysis are heartening. They indirectly support the validity of the path model discussed previously. They illustrate that we can predict retention behavior based on a few variables. The strongest statement that can be made is that retention behavior can be predicted largely from the expressed intention of the respondent.

The value of the path analysis and the discriminant analysis is the elaboration of the factors that determine that intention and that, if affected, would affect the behavior as well as the intention.

### Concordant and Discordant Decision-Makers

As noted at the beginning of the results section, Navy personnel can be categorized into three groups which typify a retention decision making style:

- o Concordant ones whose retention behavior was in accord with their intention.
- o Discordant ones whose behavior was different than their intention.
- o Undecideds who did not know (or were not willing to express) their retention intent.

The purpose of this section is to explore some possible ways in which the discordant personnel differ from the concordant personnel and investigate differences that can be found. To do full justice to such an investigation would require a separate study. Therefore, this section should be taken to be exploratory in nature.

For the following analyses, the Concordant category include both those intending to stay and those intending to leave who behaved in accord with that intent. Similarly, the Discordant category includes both those intending to stay and those intending to leave who behaved in just the opposite manner. Also included in the Discordant category are those who were undecided. Thus, the concordance categories being used do not represent "Pure" groups having parity with regard to retention behavior.

The first possibility is that the concordance types differ with respect to various demographic characteristics. Table 31 shows Race, Years of Service, Pay Grade, and CREO Category. Each of the percentages represent the proportion of Discordant (or Concordant) personnel possessing that particular characteristic. For example, in examining the Race category, 88.7% of the Discordant group were white. Comparing this with the percentage for the Concordant group shows that there were slightly more whites in the Discordant group compared to the Concordant group.

Examining the data in the table reveals the following:

- o Race. There were no differences worthy of note.
- o Years of Service. Not suprisingly, Discordant types contained proportionately more people with fewer years of service than the Concordant group. With only four years in the service, people may still be deciding among various career options, compared to those in their third term.
- o Pay Grade. Although there are some minor differences here, none of them are striking.
- o CREO Category. The Discordant group contains more personnel with higher CREO's than the Concordant group. This suggests that those in the higher categories may have been given a number of inducements (e.g., bonuses, promises of duty assignments) to stay, and thus changed their intended behavior.

Table 32 presents some marriage and spouse characteristics for the concordance groups. The two differences worth noting here are both related to work: the Discordant group contained proportionately more persons who had spouses who (1) worked, and, if working (2) had professional or paraprofessional

TABLE 31: ENLISTED PERSONNEL: DEMOGRAPHIC CHARACTERISTICS AS A FUNCTION OF CONCORDANCE

			<u>Discordant</u>	<u>Concordant</u>
Race	%	White	82.5	84.0
		Black	6.3	6.2
		Spanish	3.2	3.1
		Asian	8.0	6.7
	(n)		(473)	(699)
Years of Service	%	4 or less	35.3	18.7
		5 to 8	23.4	25.5
		9 to 12	18.3	26.2
		13 or More	23.0	29.6
	(n)		(504)	(713)
Pay Grade	%	E1 to E3	3.1	1.9
		E4 to E6	84.3	81.9
		E7 to E9	12.9	16.3
	(n)		(479)	(701)
Creo Category	%	E	1.1	0.3
		D	10.2	13.0
		C	30.8	35.6
		B	28.6	23.0
		A	29.3	28.1
	(n)		(451)	(652)

**TABLE 32: ENLISTED PERSONNEL: MARRIAGE AND SPOUSE  
CHARACTERISTICS AS A FUNCTION OF CONCORDANCE**

			<u>Discordant</u>	<u>Concordant</u>
In a Mixed Marriage	%	Yes	12.4	11.8
		No	87.6	88.2
	(n)		(426)	(630)
Single Parent	%	Yes	4.3	5.5
		No	95.7	94.5
	(n)		(488)	(869)
Traditional Marriage	%	Yes	56.5	56.6
		No	43.5	43.4
	(n)		(444)	(655)
Does Spouse Work	%	Yes	55.4	52.5
		No	44.6	47.5
	(n)		(444)	(655)
Is Spouse's Job Professional	%	Yes	39.6	35.6
		No	60.4	64.4
	(n)		(222)	(331)



occupations. The differences are not very large; however, as will be seen later, they are consistent with other factors.

Table 33 shows the family structure and family life cycle of the two groups. There are more in the Discordant group who are alone or who have only a child as a dependent. The data for life cycle (where life cycle is represented by the age of the youngest child) indicates that the Discordant group contains relatively more families in earlier stages of the life cycle.

Table 34 shows selected family separation and disruption variables for the two groups. The only appreciable difference exhibited here is in the frequency of PCS moves -- those in the Discordant group moved more frequently than those in the Concordant group. This suggests that the frequency of moving could have been a "dissatisfier" measuring their desire to leave. When the time came to act, however, they decided to stay.

The emergent portrait of the Discordant group as contrasted with the Concordant group suggests that those in the Discordant group are relatively younger, earlier in their respective careers, and are more likely to have young children who have not started school. Youth is the time for mobility and change. There is still time to change careers or geographical locations at less cost, personal as well as financial, than in later

TABLE 33: ENLISTED PERSONNEL: FAMILY STRUCTURE AND LIFE CYCLE AS A FUNCTION OF CONCORDANCE

		<u>Discordant</u>	<u>Concordant</u>
Family Structure %	Alone	8.1	3.6
	Spouse Only	19.0	19.2
	Child Only	16.5	14.9
	Other Only	1.4	0.7
	Spouse and Child	51.4	57.4
	Spouse, Child, and Other	1.8	2.9
	(n)	(495)	(704)
Life Cycle %	No Children	29.6	24.1
	Pre School (less than 5 Yrs old)	51.6	51.9
	Grammar School (5-12 years old)	14.1	19.1
	High School (13-18 years old)	2.8	3.1
	Post High School (more than 18 years old)	2.0	1.8
	(n)	(504)	(713)

TABLE 34: ENLISTED PERSONNEL: FAMILY SEPARATION AND DISRUPTION  
AS A FUNCTION OF CONCORDANCE

			<u>Discordant</u>	<u>Concordant</u>
Ever Deployed	%	Yes	67.1	68.4
		No	32.9	31.6
	(n)		(504)	(719)
Ever on TAD	%	Yes	64.1	66.2
		No	35.9	33.8
	(n)		(504)	(713)
Ever PCS Move	%	Yes	77.1	79.3
		No	22.9	20.7
	(n)		(480)	(700)
PCS Frequency	%	Never	21.4	20.7
		Frequently	8.6	9.3
		Somewhat		
		Frequent	34.2	50.4
		Very Frequent	35.8	19.6
	(n)		(244)	(700)

years. Children who have started school become a "binder" that limits the ease with which people and families can make significant life changes.

It should be remembered that these two groups are not pure in a methodological sense. A more appropriate analysis, one worthy of a small study itself, would involve a categorization into four groups:

- o Concordant leavers
- o Concordant stayers
- o Discordant leavers
- o Discordant stayers

This would allow a more finely tuned analysis sensitive to the two dimensions of decision making style and retention behavior.



## SUMMARY AND CONCLUSIONS

The sample surveyed in this study was not markedly different from samples in other studies except for one critical characteristic: all the enlisted personnel were within 6 months of the end of their current enlistment period, and all the officers were within one year of their EAOS date. Demographically, the sample differed slightly from the gender and race composition of married personnel in the Navy as a whole, but not to a significant degree.

In terms of the retention behavior of the survey respondents, there was a greater response rate on the part of enlisted personnel who stayed in the Navy, compared to those who left. Thus the representation of the sample as a whole is somewhat biased toward those who stayed in the Navy. However, the results described, on the whole, seem to be generalizable to married personnel who are close to the retention decision.

The primary objective of the follow-up study was to determine the retention behavior of the survey respondents, and to examine this behavior in the light of retention intent. Accordingly, this section is organized as follows:

- o The Retention Intention
- o The Retention Behavior
- o Linkages Between Thought and Deed
- o Implications for Navy Retention

### The Retention Intention

Respondents were surveyed within 6 months of the retention decision (one year for officers). At that time, 37% had decided to leave, 39% had decided to stay, and the remainder were undecided. Those with a clear intent were found to have arrived at their decision some 16-21 months before they were required to re-enlist.

A number of factors distinguished those intending to stay from those intending to leave, and these are summarized below. Differences in the pattern for officers and enlisted personnel are identified as appropriate. The profile for the undecided group tended to fall in between that for those intending to stay and those intending to leave.

Family Characteristics and Spouse Influence. A greater proportion of those intending to leave were childless, compared to those intending to stay. Marriage to a spouse with a professional job was also related to leaving, particularly for officers. Although there were some other differences, which were probably related to age (those intending to stay had been married longer and relatively more often), the most significant difference related to the opinion of the spouse: the consonance between the spouse's opinion on retention and the retention intention was very high. Within the path model developed for retention intent, spouse opinion was the single greatest determinant of retention intent.

Job and Military Service Characteristics. Not surprisingly, the largest numbers of enlisted personnel intending to leave were concentrated in the lower pay grades and had fewer years of service. For some of the other characteristics, the pattern for officers was just the opposite of that for enlisted personnel. Specifically, officers intending to leave, compared to those intending to stay:

- o Had more supervisory duties in their job (68% vs 57%)
- o Tended to hold outside jobs (6% vs 3%)

In contrast, enlisted personnel intending to leave, compared to enlisted personnel intending to stay:

- o Were supervisors less frequently (46% vs 58%)
- o Had outside jobs less frequently (14% vs 17%)

However, it is in the realm of perceptions that the more dramatic differences were found. Both officers and enlisted personnel intending to leave, as compared with those intending to stay:

- o Found their Navy job less interesting (about 60% vs 89%)
- o Felt their job was less important to the Navy's mission (about 80% vs 85%)
- o Were satisfied to a lesser degree with:
  - their job's sense of accomplishment (about 50% vs 80%)
  - their work group (about 58% vs 72%)
  - their supervisor (about 51% vs 70%)
  - their job overall (about 50% vs 78%)
  - their command (about 30% vs 60%)
  - their career progress (about 60% vs 80%)



Family Separation And Disruption. Contrary to what might be expected, the number and length of deployments and Temporary Duty Assignments experienced by the respondents were the same, regardless of their intention intent. Where differences occurred, they tended to favor those intending to leave. This means that those intending to leave experienced family separations just as or slightly less frequently than those intending to stay.

However, the perceptions of family stress differed markedly among the retention groups:

- o Over 50% of the enlisted personnel intending to leave indicated that deployments resulted in a great deal of family stress: only 26% of those staying indicated a great deal of stress.
- o Over 20% of the enlisted personnel intending to leave said that their families did not cope well with stress due to deployments; only 8% of those intending to stay indicated inadequate coping.

With respect to relocation (PCS moves), enlisted personnel intending to leave were similarly less satisfied with PCS moves. In addition, personnel intending to leave did experience a slightly greater number of PCS moves compared to those who intended to stay.

Retention Factors. Respondents were asked to indicate how important various factors were for deciding to leave or stay in the Navy. The five most important factors for officers intending to stay in the Navy were:

- o Satisfaction with Navy Job
- o Spouse attitude toward Navy
- o Challenge of Navy Job
- o Overall Time Spent with Family
- o Total Family Income

For enlisted personnel intending to stay in the Navy, the most important factors were:

- o Satisfaction with Navy Job
- o Spouse Attitude Toward Navy
- o Choice of Guaranteed Duty Assignments
- o Total Family Income
- o Use of Personal Skills in Navy Job

In contrast, the five most important factors for officers intending to leave were:

- o Family Separation Due to Deployment
- o Overall Time Spent with Family
- o Potential Civilian Job Opportunities
- o Satisfaction with Navy Job
- o Potential Civilian Job Benefits

For enlisted personnel intending to leave, the five most important factors were:

- o Total Family Income
- o Family Separation Due to Deployment

- o Potential Civilian Job Opportunities
- o Potential Civilian Job Benefits

Overall, for those intending to stay, the most important factors in the decision tended to focus more on job or benefit related issues. For those intending to leave, there was a relative shift toward family-related issues and the perceived attractiveness of the civilian alternative.

The path analysis identified four factors with a direct effect on the retention decision. These were, in order of descending importance:

- o Opinion of the Spouse
- o Satisfaction with Navy/family life
- o Satisfaction with the Navy job
- o Years of Service in the Navy

Clearly, family, work and Navy life are intertwined in these relationships.

#### The Retention Behavior

The retention behavior of the survey respondents was ascertained from Navy records. Survey responses were then re-analyzed on the basis of this behavior. The behavior of those who had been undecided was determined, as was the retention behavior of those who had expressed an intent to stay or to leave.

Family Characteristics and Spouse Influence. For the current study, additional analyses were carried out with the marriage and family variables, including the addition of a family life cycle variable. This was done in order to look at the family structure in more detail. The findings from all of these variables corroborated the intention findings, with some refinement. Decreased responsibility, in the form of no dependent children, increases the probability of leaving. For those with dependent children, stage in the family life cycle plays a role: Those with very young children (under 5) are comparatively more likely to leave than those with children between 5 and 12. Marriage to a spouse with a professional job was also related to leaving on the part of officers.

As was true for intention, the retention opinion of the spouse was significantly related to retention behavior. A covariate analysis, taking into account years of service and the categories of officers vs. enlisted personnel, identified spouse opinion as the single variable with the greatest explanatory power for retention behavior. Relatively speaking, however, it did not play as strong a role as it had for retention intention.

Job and Military Service Characteristics. Comparatively more of those in the lower pay grades left. Those with fewer years of service were more likely to leave. Both of these patterns are in consonance with the intention findings. Looking at

years of service in more detail, it was determined that somewhat more enlisted personnel left who had 5-8 years of service, compared to those with 4 years or less. An additional variable, CREO category, was added for the retention behavior analysis. It was found that proportionately more of the enlisted personnel in the highest CREO category (that is, category A) left.

Perceptions of the job, or job satisfaction, were analyzed in composite, using a job satisfaction scale. This scale includes the individual items, such as the sense of accomplishment from the job, identified in the above presentation on intention. Those who left--both officers and enlisted personnel--were significantly less satisfied with their jobs.

Family Separation and Disruption. The subject variables found to differentiate between those who left and those who stayed were, again, supportive of the intention findings. Whether or not a service member had ever been deployed or had been on TAD made no difference. Presence or absence of PCS experience, as well as its frequency, did make a difference.

Most important was the total amount of time spent away from the family, whether from deployment, TAD's or other reasons. The proportion of enlisted personnel who left increased steadily, from 17% to 30%, as the frequency of separation ranged from hardly any, to separation from the family around three-fourths of the time. Although this pattern was less

distinct for officers, there was a similar increase in the proportion of officers leaving when the amount of time spent away from the family reached three-fourths.

Retention Factors. The behavioral analysis of retention factors was based upon mean ratings for some 45 questions directed at factors important for staying and leaving. The intention summary presented above is based upon respondent weighting of the five most important factors in the set of 45 questions. However, the results are strikingly similar.

For those who stayed, job related factors were given positive rating, as was spouse's attitude toward the Navy. For those who stayed, the civilian alternative tends to be only moderately attractive. Conversely, for those who left, family separation factors tended to be rated more negatively, job related factors were given more neutral ratings, and the civilian alternative appeared to be more attractive.

For the path analysis, there was only one direct effect upon retention behavior: retention intent. Indirect effects include three variables, the first two of which were direct effects for the retention intent path analysis. The indirect effect variables for retention behavior, in descending order of importance, were:

- o Opinion of the Spouse

- o Years of Service
- o Satisfaction with Family Separation

If anything, this pattern heightens the importance of family-related variables.

### The Thought and the Deed

The first Retention Study was begun in October 1980, and the survey response cut-off date was September 15, 1981. This study was initiated during a time when retention of married mid-career Navy personnel was perceived to be a problem. After the data for the first study were collected, a number of events occurred to change both the military and civilian environments:

- o The civilian economy went into a recession with high interest rates and high unemployment.
- o Military personnel received an across-the-board pay increase in October of 1982.
- o Culturally, military life as a career choice was becoming more acceptable to greater numbers of people. This trend had begun after the Viet Nam war was ended, and it continues to the present day.

With the civilian opportunity structure diminished, with increased pay available, and the increased acceptance of the military as a career choice, it is not surprising that people entered the military in record numbers. Enlistments in all military branches were up to such an extent that, for the first time in many years, people were turned down for enlistment because quotas had been filled.

Given these events, in addition to the fragility of any intention-behavior linkage with the passage of time, it is not surprising to find that when the time came to act, many of the respondents changed their minds (most in the direction of staying), and that the majority of the undecided group also stayed. Perhaps what is surprising is that intention remains the single best predictor of retention behavior. Inclusion of the retention intention in a discriminant analysis significantly increased the accuracy of the prediction.

Who Left and Who Stayed. What was the quantitative match between intention and behavior for the retention decision? These relationships are graphically portrayed in Figure 6 for the total sample as well as for officers and enlisted personnel separately. Examining the top part of Figure 6, it can be determined that:

- o 55% of the sample carried out their stated intention
- o 21% of the sample reversed their intended decision
- o Almost nine-tenths (87%) of the undecided group stayed.

Comparing those intending to stay to those intending to leave, the "stay" group was highly concordant (96% did stay), and the "leave" group was highly discordant (52% stayed). Overall, about three-fourths (77%) stayed and one fourth left (23%). The intention composition of the group that actually stayed was:



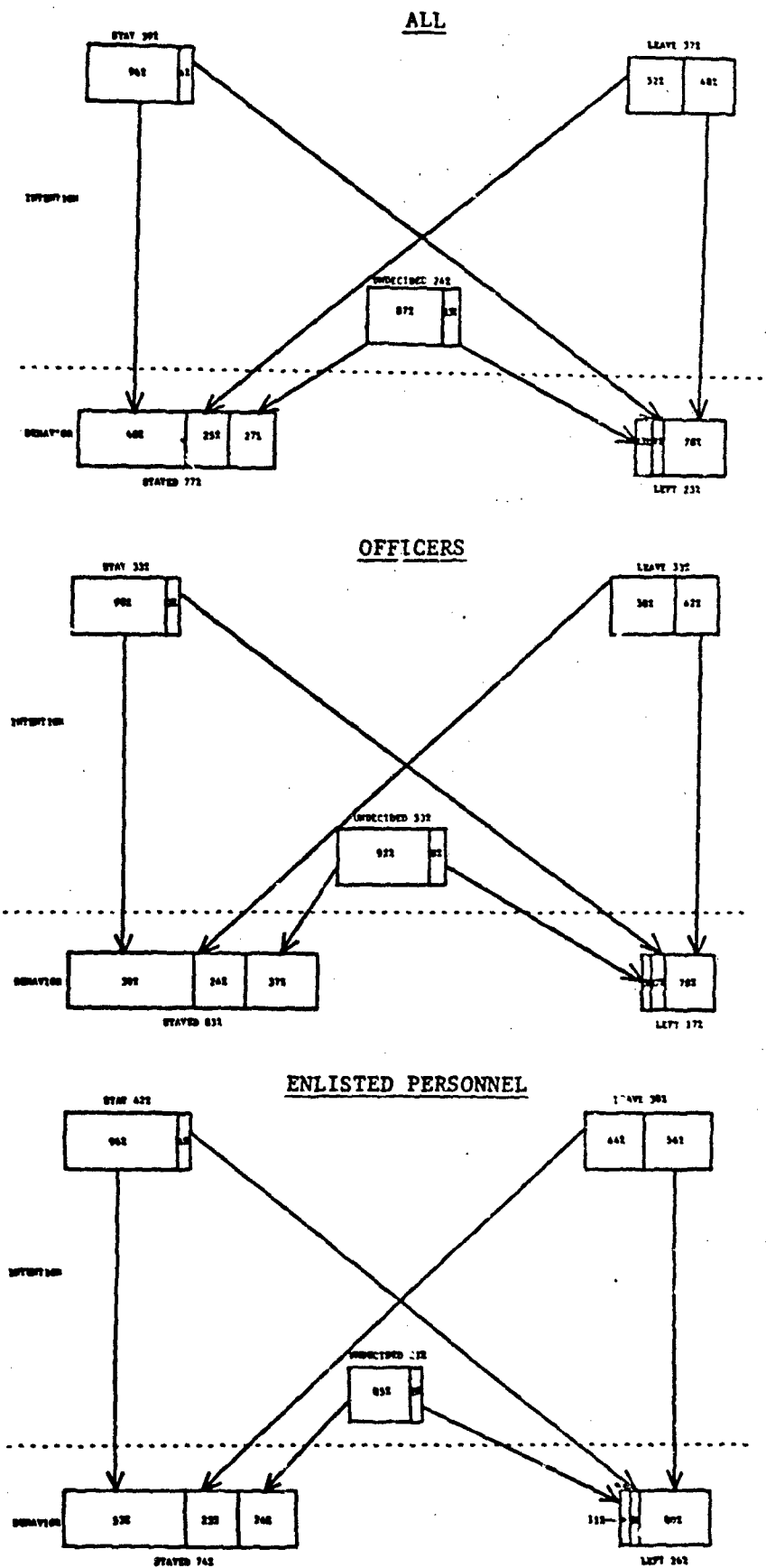


FIGURE 6: LINKAGES BETWEEN INTENTION AND BEHAVIOR

- o One-half (48%) had intended to stay
- o One-fourth (25%) had intended to leave
- o One-fourth (27%) had been undecided

For the group that left, on the other hand, the intention composition was:

- o Eight-tenths (78%) had intended to leave
- o One-tenth (9%) had intended to stay
- o One-tenth (13%) had been undecided.

There are some interesting patterns here with respect to concordance and discordance. Although those intending to leave constituted the most discordant intention group, they also constituted the most concordant behavior group. That is, more of those with an intention to leave changed their minds (compared to those intending to stay), but close to 80% of the group that did leave had intended to do so. For all of those who stayed, just less than half had started out with a clear intention to do so.

Turning to the patterns for officers vs enlisted personnel (Figure 6), more officers were initially undecided (33% vs 21%), and relatively fewer indicated an intention to stay (33% vs 41%). However, proportionately more, in total, did stay (83% vs 74%). Beyond this, there is very little difference between officers and enlisted personnel in the concord-discord relationships for intent and behavior. That is, both groups match the pattern identified for the sample as a whole.

Consequently, based upon the survey sample, it can be said that:

- o Virtually all Navy personnel with the intention to stay will stay
- o Most of those who are undecided will stay
- o A substantial number of those intending to leave will change their minds
- o Almost all who do leave will have had that intention well before the deadline for re-enlistment.

#### Implications for Navy Retention

The data base for this study was very large and complex. The findings can be viewed from a number of perspectives, with meaningful conclusions drawn from each of these perspectives. In line with the more immediate objectives for the retention study, however, this discussion is limited to a small number of macro-level conclusions.

Conclusion: The behavior findings are highly supportive of the intention findings -- most aspects of work and Navy life are also family variables.

As stated in the first report, Navy life impinges on family life. The family of a military person has as much an identity with the Navy as that person does. The family's complex fabric of personal commitment and interpersonal sharing is embedded in Navy life to the same extent as a single person's commitment to the Navy, perhaps even more so. The family's fortune and misfortunes are married together; to the extent

that the Navy can enhance family/Navy life, it can increase the retention of married personnel. To the extent that the Navy can respond to needs of families, the quality and quantity of personnel wanting to stay will increase.

The behavior findings validate the degree to which this is true, and they further emphasize the centrality of the spouse's opinion. Accordingly, family support services may be able to play a critical role in strengthening the Navy/family relationships.

Conclusion: Retention intention is a powerful predictor of retention behavior.

In a sense, the best way (certainly the simplest way) to predict the retention behavior of individuals is to ask them. For most, the intention decision is formulated well before the re-enlistment date. This period of time, 16-21 months before re-enlistment, may be the critical time for any appropriate intervention in the retention decision. Those with a clear intention of staying are very likely to do so. A substantial proportion of those who are undecided are also likely to stay. However, a significant number of those intending to leave are likely to stay as well. Compared to those intending to stay, the retention decision for those intending to leave is much more labile. It may also be more sensitive to external alternatives, since it is this group that is more dissatisfied with the Navy in general.

Conclusion: The relative effect of the civilian alternative should be explored.

The initial plan for this follow-up study called for sending a second questionnaire to all of those who participated in the first study, those who left as well as those who stayed. Part of the follow-up questionnaire was focussed on the civilian alternative in an attempt to identify the extent to which it was seen to be attractive and feasible to those who stayed and to those who left. However, it was not possible to carry out this longitudinal follow-up (see last section of this report).

Clearly, the civilian job market and the unemployment rate at any point in time have a significant effect on the occupational alternatives that are available to individuals. A critical question is the extent to which the military is seen as the preferred alternative, despite positive or negative fluctuations in the civilian environment, vs. the extent to which it is viewed as the less preferred employer. It is likely that some turn to the civilian alternative only when dissatisfaction with the Navy reaches some threshold and/or the perceived benefits of civilian employment substantially exceed those of military service. Others may turn to the military only when the civilian alternative is not feasible. The motivations and the incentives relevant to each of these viewpoints would necessarily differ.

Conclusion: Although officers and enlisted personnel differ in a number of ways that are related to Navy retention, they are also the same in many respects.

The Navy/family life relationship is pivotal for both officers and enlisted personnel.



## EPILOGUE

The ultimate goal of this study was to better understand the role of the family in determining the retention of Navy members. This included investigating the demands placed on the family by Navy life as well as the demands placed by the family on the military person's career commitment. Following the initial survey, a follow-up survey was planned to serve these objectives:

- (1) to assess the actual retention behavior of individuals who were undecided in the first study
- (2) to assess the extent to which retention intent (from the first study) corresponds to retention behavior
- (3) to statistically analyze those aspects of family life and of Navy life that contribute to positive or negative retention behavior
- (4) to try and identify discrepancies between expectations of civilian life and its reality for persons who left the Navy after the first survey

As plans for the second survey got under way, it was determined that it would not be possible to survey those who left the Navy. They were beyond the authority of the military, and it would not be possible to obtain their addresses. Instrument development then proceeded directed toward only that portion of the sample which remained in the service.

Data were to be collected in two ways. The first was to be a world-wide mail survey of those who stayed in the Navy, and the second a telephone interview of about 100 of those who responded to the second survey. The purpose of the telephone



interviews was to gain a more detailed understanding of the dynamics and expectations surrounding the retention decision than would be possible through a mail survey.

The mail survey form was completed, along with a one page summary of the first study. Both of these were to be sent to the follow-up sample. The second questionnaire contains the following question sets:

- o Job and Family Characteristics. This includes 11 questions which basically update the situation of the respondent with respect to his job and marital status.
- o Factors Related to Retention. There are six questions in this set which deal with the civilian alternative, satisfaction with the current retention decision, and a retrospective look at most of the retention factors investigated in the first study.
- o Family Service Centers. Five questions are included that address knowledge, attitude, and practices relative to the Family Service Centers.

A copy of this questionnaire, along with the one-page summary of the first study, is included in Appendix B.

Master tape data was obtained from the Navy and matched to the survey data in order to identify those in the sample who had stayed in the Navy, and in order to extract the subset of this group that had responded to the initial questionnaire. A list of the latter names was submitted to the Navy in order to obtain their current mailing addresses. Subsequently we were notified that a large-scale ADP conversion was underway within the Navy, and that the mailing labels could not be provided. Consequently, it was not possible to field the second questionnaire.

## REFERENCES

- Athanasίου, R. Job attitudes and occupational performance: A review of some important literature. In Measures of Occupational Characteristics. Robinson, J., Athanasίου, R., and Head, K.D. (eds) Institute for Social Research: Ann Arbor (1976).
- Borack, J. I. Intentions of women (18-25 years old) to join the military: Results of a national survey. Technical Report TR 78-38 submitted to the Office of Naval Research, 1978.
- Carr, R., Orthner, D., Brown III, R. Living and family patterns in the Air Force. Paper presented at Navy-Wide Family Awareness Conference, Norfolk, Virginia, 1978.
- Cook, T. D., and Campbell, D. T. Quasi-Experimentation: Design and Analysis Issues for Field Settings. (Rand McNally: New York), 1979.
- Cook, T. M., Novaco, R. W., and Sarason, I.G. Generalized expectancies, life experiences, and adaptation to Marine Corps recruit training. Technical Report AR-002 submitted to Office of Naval Research, 1980.
- Decker, K.B. A study of the problems encountered and resources utilized by Navy wives during periods of family separation. Paper presented at the Military Family Research Conference, San Diego, 1977.
- Derr, C. B. Marriage/family issues and wife styles across Naval officer career stages: Their implications for career success. Technical Report NPS54-79-003, Naval Post Graduate School, Monterey, CA, 1979.
- Durning, K. P. and Mumford, S. J. Differential perceptions of Organizational Climate held by Navy enlisted women and men. Technical Report TR-76 TQ-43, Navy Personnel Research and Development Center, 1976.
- Grace, G.L., Steiner, M.B., Holter, H.A. Navy career counseling research: Navy wives study. System Development Corporation, 1976.
- Grace, G.L., Holter, H.A., Soderquist, M.I. Career satisfaction as a factor influencing retention. Technical Report, System Development Corporation Technical Report 4, 1976.
- Grace, G.L., and Steiner, M.B. Wives attitudes and retention of Navy enlisted personnel. In Military Families and Adaptation to Change, Hunter, E.J. and Nice, D.S. (eds). (Praeger: New York, 1978)

- Hoiberg, A. Women in the Navy. Technical Report submitted to Naval Health Research Center, 1979.
- Hunter, E. and Nice, D.S. Military Families and Adaptation to Change. (Praeger: New, York 1978)
- Landau, S.B., and Farkas, A. J. Selective retention: A longitudinal analysis: I. Factors related to recruit training attrition. Technical Report TR-79-5, submitted to Office of Naval Research, 1978.
- McGrath, J.W. Communication, participation and attitude: A study of Navy wives. Unpublished manuscript, 1977.
- Moday, R. T. and Spencer, D. G. The influence of task and personality characteristics on employee turnover and absentee incidents. Graduate School of Management, (University of Oregon: Eugene, 1981).
- Nice, D. S., Beck, A. L. Cross-cultural adjustment of military families overseas. Technical Report, Naval Health Research Center.
- Orthner, Dennis K. and Nelson, Rosemary S., A demographic profile of U.S. Navy personnel and families, Prepared for the Navy Family Support Program by Family Research and Analysis, Inc., Greensboro, N.C., August 1980.
- Orthner, D. Families in Blue: A study of married and single parent families in the U.S. Air Force. Family Research and Analysis, Inc. Technical Report submitted to the United States Air Force, 1980a.
- Orthner, D. Quality of Air Force support systems: Perspectives from Air Force women. Paper presented at the U.S. Air Force Academy, Conference on Women in the Air Force, 1980b.
- Robinson, J., Athansiou, R., and Head, K.D. Measures of Occupational Attitudes and Occupational Characteristics (Institute for Social Research: Ann Arbor, 1976).
- Schaefer, M. M. A study of the influence of Navy wives on their husbands' career decisions. Unpublished M.A. thesis, United States International University, 1978.
- Spencer, D. G. and Steer, R. M. Reference as a moderator of the job satisfaction-turnover relationship. Graduate School of Management (University of Oregon: Eugene, 1981).
- Steers, R. M. and Mowday, R. T. Employee turnover and post-decision accommodations processes. Technical Report No. 22 submitted to the Office of Naval Research, 1979.

Steiner, G. L. and Steiner, M. B. Wives attitudes and the retention of Navy personnel. In Hunter, E. J. and Nice, D.S. (eds.) Military Families: Adaptation to Change (Praeger, New York), 1978.

Stoloff, P., Lockman, R., Allbritton, A. S., and McKinley, H. H. An analysis of first-term reenlistment intention. Technical Report submitted to the Institute for Naval Studies, 1979.

Szoc, R. Family factors critical to the retention of Naval personnel, Westinghouse Public Applied Systems, Final Report, 1982.

Trejo, P. E. Retention Study, 1978. PATWINGSPAC Units. Technical Report submitted to Patrol Wings, Pacific Fleet, 1978.

Thomas, P. J. Why women enlist: the Navy as an occupational choice. Technical Report TR 77-20 submitted to the Office of Naval Research, 1977.

Thomas, P. J. Factors affecting the management of Navy women. Navy Personnel Research and Development Center Technical Note TN 80-17, 1980.

Thomas, P. J. and Durning, K. P. Role affiliation and attitudes of Navy wives. Navy Personnel Research and Development Center Technical Report TR 80-10, 1980.

Turner, S. P. A model to predict retention and attrition of Hispanic-Americans in the Navy. Technical Report MC 1-1, Office of Naval Research, 1980.

Wilcove, G. L., Thomas, P. J., Blankenship, C. The use of pre-enlistment variables to predict the attrition of Navy females enlistees. Technical Report submitted to the Office of Naval Research, 1979.

Woelfel, J. L. and Samuel, J. M. Marital dissatisfaction, job satisfaction and retention in the Army. In Hunter, E. J. and Nice D. S. (eds) Military Families: Adaptation to Change (Praeger: New York), 1978.

Woolley-Downs, Sabra. Ethnography of a Navy Community. Paper presented at the Southeast Regional Conference of the University Seminar on Armed Forces and Society, 1979.

Westinghouse Electric Corporation, 1980 Roadmap for Naval family research. Technical Report, Office of Naval Research, 1980.



#### APPENDICES

- APPENDIX A. Initial Survey Questionnaire
- APPENDIX B. Summary of Initial Survey and  
Proposed Follow Up Questionnaire

**APPENDIX A. Initial Survey Questionnaire**

PRIVACY ACT STATEMENT

The authority to request the information contained on the questionnaire is 5 U.S.C. 301, Departmental Regulations. The information will be used by the Navy Personnel Research and Development Center and Westinghouse National Issues Center (WNIC), to define to what extent family related factors play in the decision to leave the Navy for enlisted and officer men and women; to determine the characteristics of those service members who leave for family-related reasons; to determine the types of policy changes or supports which might encourage service members to remain in the Navy. Participation in this survey/research is voluntary.

We have designed the questionnaire with only certain types of Navy personnel in mind. If you are:

- currently married, or
- responsible for a primary dependent, or
- both,

we would like for you to fill out this questionnaire. If you are not currently married or are not responsible for a dependent, please check the box at the very bottom of this page and mail the questionnaire back without filling it out.

FOR THOSE WHO ARE FILLING OUT THIS SURVEY:

Please answer the questions as frankly as you can. THIS IS NOT A TEST--there are no right or wrong answers. We only want to know how YOU think and feel. Your answers will be completely CONFIDENTIAL. No one in the Navy will ever see your individual answers.

Your answers will be very helpful to our research. To help insure your privacy, we prefer not to have your name on the questionnaire. However, we have assigned you an identification number which is written on the upper right corner of the survey form. This identification number will not be used to identify your answers. The completed questionnaires will be processed by automated equipment which will summarize the answers in statistical form. Your individual responses will remain strictly confidential since they will be combined with those of many other persons.

Your participation in this research is entirely voluntary. We appreciate your cooperation, and hope you enjoy the survey.

☐ I AM NOT CURRENTLY MARRIED, AND I HAVE NO DEPENDENT



### SECTION 1: ENLISTED PERSONS ONLY

This section asks you questions about your immediate future plans with regard to the Navy. Please answer the questions as accurately as possible. All answers will be held in strictest confidentiality and will be used for statistical purposes only.

ANSWER QUESTIONS 1 THROUGH 11 IF YOU ARE AN ENLISTED PERSON

1. Are you rated? Yes ☐ 1 1:6  
No ☐ 2
2. If YES, please write in your General Rating (e.g., RM, AME). Rating ☐ 1:7-9  
Not Rated ☐
3. What is your current Pay Grade? (e.g., E1, E2, etc.) Pay Grade ☐ 1:10-11
4. When did you first enlist? (Write in year and month)  YR  MO 1:12-15
5. In which enlistment period are you now serving? 1st ☐ 1:16  
2nd ☐  
3rd ☐  
4th ☐
6. When did your current enlistment begin? (Write in year and month)  YR  MO 1:17-19
7. When is your EAOS (Expiration of Active Obligated Service)? (Write in year and month)  YR  MO 1:21-24
8. Do you intend to reenlist at the end of your current enlistment? Yes ☐ 1 1:25  
No ☐ 2  
Don't Know ☐ 3
9. Do you intend to get an extension of your current enlistment? Yes ☐ 1 1:26  
No ☐ 2  
Don't Know ☐ 3
10. If you reenlist at the end of your current term, how long will you reenlist for (in years)? Years  1:27-28  
Does Not Apply ☐ -1
11. If you extend your current enlistment, how long will you extend it for (in years)? Years  1:29-30  
Does Not Apply ☐ -1

NON GO TO SECTION 111

### SECTION 11: OFFICERS ONLY

ANSWER QUESTIONS 12 THROUGH 19 IF YOU ARE AN OFFICER

12. What is your Designator? (e.g., 1100) Designator  1:31-34
13. Please write in your current rank. Rank  - 1:35-36
14. When did you receive your commission? (Write in year and month)  YR  MO 1:37-40

15. When is your MSR (Minimum Service Requirement) ended? (Write in year and month) 1:41-44  
 YR MO
16. Do you have prior service as an enlisted person? Yes ☐ 1 1:45  
 No ☐ 2
17. If YES, when did your enlisted service begin? (Write in year and month) 1:46-49  
 YR MO  
 Does Not Apply ☐ -1
18. If YES, when did your enlisted service end? (Write in year and month) 1:50-53  
 YR MO  
 Does Not Apply ☐ -1
19. Do you intend to leave (i.e., resign from) the Navy at the end of your MSR? Yes ☐ 1 1:54  
 No ☐ 2  
 Don't Know ☐ 3

**SECTION III: PERSONAL CHARACTERISTICS:  
OFFICER AND ENLISTED PERSONNEL**

This section contains questions concerning your background and some of your personal characteristics. Please answer the questions as accurately as possible. Both officers and enlisted persons should answer all the questions.

20. To which type of duty are you assigned? Surface Force ☐ 1 1:55  
 Submarine Force ☐ 2  
 Naval Air ☐ 3  
 Other ☐ 4  
 (Please Specify)
21. What is your current fleet assignment? Pacific Fleet ☐ 1 1:56  
 Atlantic Fleet ☐ 2  
 Ashore in U.S. ☐ 3  
 Ashore Overseas ☐ 4
22. How old were you when you first joined the Navy? (In years) Age 1:57-58
23. In years and months, how long have you been on active duty? 1:59-62  
 YR MO
24. When you leave the military, how many total years of military service do you expect to have? Years 1:63-64
25. What was your age, in years, on your last birthday? Age 1:65-66
26. What is your sex? Male ☐ 1 1:67  
 Female ☐ 2
27. What is your race? White/not of Hispanic Origin ☐ 1 1:68  
 Black/not of Hispanic Origin ☐ 2  
 Hispanic ☐ 3  
 American Indian or Alaskan Native ☐ 4  
 Asian ☐ 5  
 Pacific Islander (e.g., Filipino) ☐ 6  
 Other (Specify Below) ☐ 7
28. Are you Native or Foreign born? Native ☐ 1 1:69  
 Foreign-born ☐ 2
29. Circle the last grade of formal schooling you have completed. 1 2 3 4 5 6 7 8 (Grammar School) 1:70-71  
 9 10 11 12 (High School)  
 13 14 15 16 (College)  
 16 + (Graduate School)

30. What is the highest formal certificate or degree that you have?

GED	<input type="checkbox"/>	1	1:72
High School Diploma	<input type="checkbox"/>	2	
Junior College Degree (e.g., AA, AS)	<input type="checkbox"/>	3	
College Degree (e.g., BA, BS)	<input type="checkbox"/>	4	
Master's Degree (e.g., MA, MS)	<input type="checkbox"/>	5	
Doctorate (e.g., Ph.D., Ed.D.)	<input type="checkbox"/>	6	
Professional Degree (e.g., J.D., M.D.)	<input type="checkbox"/>	7	
None of the Above	<input type="checkbox"/>	8	

31. What is your current marital status?

Single, Never Married	<input type="checkbox"/>	1	1:73
Currently Married	<input type="checkbox"/>	2	
Divorced or Separated	<input type="checkbox"/>	3	
Widowed	<input type="checkbox"/>	4	

32. If currently married, how many years in your current marriage?

Years  1:74-75  
Does Not Apply ☐ -1

33. How many times have you been previously married?

Number of Times  1:76-77  
Does Not Apply ☐ -1

#### SECTION IV - ABOUT YOUR SPOUSE

This section contains questions about your spouse. Some questions may not apply to you. In those instances, check the box that says "Does Not Apply". Otherwise answer all the questions to the best of your ability. IF YOU ARE NOT CURRENTLY MARRIED, PLEASE SKIP THIS SECTION ENTIRELY AND MOVE ON TO SECTION V.

34. What was your current spouse's age on his/her last birthday?

Age  2:6-7

35. What is his/her race?

White/not of Hispanic Origin	<input type="checkbox"/>	1	2:8
Black/not of Hispanic Origin	<input type="checkbox"/>	2	
Hispanic	<input type="checkbox"/>	3	
American Indian or Alaskan Native	<input type="checkbox"/>	4	
Asian	<input type="checkbox"/>	5	
Pacific Islander (e.g., Filipino)	<input type="checkbox"/>	6	
Other	<input type="checkbox"/>	7	

36. Is your spouse Native or Foreign born?

Native	<input type="checkbox"/>	1	2:9
Foreign Born	<input type="checkbox"/>	2	

37. Is the primary language of your spouse English?

Yes	<input type="checkbox"/>	1	2:10
No	<input type="checkbox"/>	2	

37a. If no, write in your spouse primary language.

38. If you answered "No" to Question 37, is your spouse fluent in English?

Yes	<input type="checkbox"/>	1	2:11
No	<input type="checkbox"/>	2	

39. Circle the last grade of formal schooling your spouse has completed.

1 2 3 4 5 6 7 8	(Grammar School)	2:12-13
9 10 11 12	(High School)	
13 14 15 16	(College)	
16 +	(Graduate School)	

40. What is the highest formal degree or certificate that your spouse has?

Does Not Apply	<input type="checkbox"/>	-1	2:14
GED	<input type="checkbox"/>	1	
High School Diploma	<input type="checkbox"/>	2	
Junior College Degree (e.g., AA, AS)	<input type="checkbox"/>	3	
College Degree (e.g., BA, BS)	<input type="checkbox"/>	4	
Master's Degree (e.g., MA, MS)	<input type="checkbox"/>	5	
Doctorate (e.g., Ph.D., Ed.D.)	<input type="checkbox"/>	6	
Professional Degree	<input type="checkbox"/>	7	
None of the Above	<input type="checkbox"/>	8	

41. Did you marry your current spouse while in the Navy?

Yes	<input type="checkbox"/>	1	2:15
No	<input type="checkbox"/>	2	

42. How many times has your spouse been previously married? Number of Times \_\_\_\_\_ 2:16-17

43. Does your current spouse have any military experience? Yes ☐ 1 2:18  
No ☐ 2

44. If you answered "Yes" to Question 43, which branch? Currently in Navy ☐ 1 2:19  
Currently in Other ☐ 2  
Armed Forces Branch  
Formerly in Navy ☐ 3  
Formerly in Other ☐ 4  
Service Branch

45. If your spouse has had military experience, what was his/her highest rank or pay grade? Rank or Pay Grade \_\_\_\_\_ 2:20-21  
Does Not Apply ☐ -1

46. If your spouse is not in the military, does he/she currently have a civilian job? Yes ☐ 1 2:22  
No ☐ 2  
Does Not Apply ☐ 3

#### SECTION V: ABOUT YOUR HOUSEHOLD

This section contains questions about other members of your household. If a particular question does not apply to you, please mark the box that says "Does Not Apply".

47. How many people live with you in your home, not counting yourself? Number of People \_\_\_\_\_ 2:23-24

48. All together, how many people, not including yourself, or your spouse, are dependent on you for some or all? (If none, write "0") Number of Dependents \_\_\_\_\_ 2:24-25

49. How many of these dependents are currently living with you in your home? Number \_\_\_\_\_ 2:26-27  
Does Not Apply ☐ -1

50. Is your family currently living where you are stationed? Yes ☐ 1 2:28  
No ☐ 2  
Does Not Apply ☐ 3

51. What are the types of dependents you have (check as many as apply)? Children ☐ 1 2:29  
Spouse ☐ 1 2:30  
Other (Please Specify Below) ☐ 1 2:31

52. What are the ages of your children from eldest to youngest? Does Not Apply ☐ -1 2:32-33  
Age of Oldest \_\_\_\_\_ 2:34-35  
Age of 2nd \_\_\_\_\_ 2:36-37  
Age of 3rd \_\_\_\_\_ 2:38-39  
Age of 4th \_\_\_\_\_ 2:40-41  
Age of 5th \_\_\_\_\_ 2:42-43  
Age of 6th \_\_\_\_\_ 2:44-45  
Age of 7th \_\_\_\_\_ 2:46-47  
Age of 8th \_\_\_\_\_ 2:48

53. If you have children as dependents, what type of responsibility do you have for them? Does Not Apply . . . . . ☐ 1 2:49  
I am Living with Children and Spouse . . . . . ☐ 2  
I have Permanent Custody of children . . . . . ☐ 3  
I am Temporarily Separated from Children . . . . . ☐ 4  
I have Financial Responsibility only . . . . . ☐ 5

54. Who in the family is responsible for household maintenance (e.g., housecleaning)? (Check as many as apply)

Self ☐ 1 2:50  
 Spouse ☐ 2  
 Both Self and Spouse ☐ 3  
 Children ☐ 4  
 Other (Specify here) ☐ 5

55. Who in the family is responsible to be the primary provider (e.g., "breadwinner")?

Self ☐ 1 2:51  
 Spouse ☐ 2  
 Both Self and Spouse ☐ 3  
 Other (Specify here) ☐ 4

56. Who in the family is primarily responsible for child care?

Self ☐ 1 2:52  
 Spouse ☐ 2  
 Both Self and Spouse ☐ 3  
 Other (Specify here) ☐ 4  
 Does Not Apply ☐ 5

57. Who is primarily responsible for making major decisions that affect the whole family?

Self ☐ 1 2:53  
 Spouse ☐ 2  
 Both Self and Spouse ☐ 3

58. Taking everything into account, how satisfied are you with the management of your household?

Very Satisfied ☐ 1 2:54  
 Somewhat Satisfied ☐ 2  
 Neither Satisfied nor Dissatisfied ☐ 3  
 Somewhat Dissatisfied ☐ 4  
 Very Dissatisfied ☐ 5

#### SECTION VI: MARRIAGE AND FAMILY

This section contains questions about your marriage and about your family. Some of the questions ask how you feel about various aspects of your marriage. Please don't discuss any of your answers with your spouse until after you have completed the entire survey. We want to know only how you feel. Please answer the questions as accurately as possible; don't spend too much time on selecting any single answer.

59. How important is communication for you in your relationship with your spouse?

Very Important ☐ 1 2:55  
 Quite Important ☐ 2  
 Somewhat Important ☐ 3  
 Not at all Important ☐ 4  
 Does Not Apply ☐ 5

60. How would you characterize the communication that you have with your spouse?

Very Open ☐ 1 2:56  
 Quite Open ☐ 2  
 Somewhat Open ☐ 3  
 Not at all Open ☐ 4  
 Does Not Apply ☐ 5

61. How often do you confide in your spouse about matters that are important to you?

All of the Time ☐ 1 2:57  
 Most of the Time ☐ 2  
 Some of the Time ☐ 3  
 Little or None of the Time ☐ 4  
 Does Not Apply ☐ 5

62. Are you satisfied with the companionship of your Spouse?

Very Satisfied ☐ 1 2:58  
 Somewhat Satisfied ☐ 2  
 Neither Satisfied nor Dissatisfied ☐ 3  
 Somewhat Dissatisfied ☐ 4  
 Very Dissatisfied ☐ 5  
 Does Not Apply ☐ 6

63. Are you satisfied with the sexual relationship with your spouse?

1 2 3 4 5 6 2:59

64. Taking everything into account, are you satisfied with your marriage?

1 2 3 4 5 6 2:60

65. All in all how satisfied are you with your relationship with your children? (If you have no children, leave blank.)

1 2 3 4 5 6 2:61

66. How often are your children a source of stress to you and your spouse?
- Very Often ☐ 1 2:62  
 Quite Often ☐ 2  
 Somewhat Often ☐ 3  
 Not Often at All ☐ 4  
 Does Not Apply ☐ 5
67. Do you think your spouse supports your decisions concerning your Navy career?
- Yes ☐ 1 2:63  
 No ☐ 2  
 Don't Know ☐ 3  
 Does Not Apply ☐ 4
68. Does your spouse want you to stay in the Navy?
- Yes ☐ 1 2:64  
 No ☐ 2  
 Don't Know ☐ 3  
 Does Not Apply ☐ 4
69. How important is your spouse's opinion to you in deciding whether or not to stay in the Navy?
- Very Important ☐ 1 2:65  
 Quite Important ☐ 2  
 Somewhat Important ☐ 3  
 Not Important at All ☐ 4  
 Does Not Apply ☐ 5
70. Does your spouse try to influence your decision to stay or leave the Navy?
- Yes ☐ 1 2:66  
 No ☐ 2  
 Don't Know ☐ 3  
 Does Not Apply ☐ 4

Please, read each statement and circle the appropriate number that indicates the extent to which you agree or disagree with that statement.

71. My family encourages me to stay in the Navy. 1 Strongly Disagree 2 Disagree 3 Slightly Disagree 4 Neither Agree Nor Disagree 5 Slightly Agree 6 Agree 7 Strongly Agree 8 Does Not Apply 2:67
72. When I run into conflicts between my Navy responsibilities and my family responsibilities, I usually find a way to handle it all right. 1 2 3 4 5 6 7 8 2:68
73. Many times the Navy and my family pull me in opposite directions. 1 2 3 4 5 6 7 8 2:69
74. Because the Navy provides so many benefits for my family, I plan to stay in the Navy. 1 2 3 4 5 6 7 8 2:70
75. My concern for my family makes it more likely that I will leave the Navy soon. 1 2 3 4 5 6 7 8 2:71
76. My family wants me to leave the Navy because its demands interfere with family life. 1 2 3 4 5 6 7 8 2:72
77. The demands of my Navy job interfere with my family life. 1 2 3 4 5 6 7 8 2:73
78. When I have conflicts between my Navy duties and my family duties, I usually just feel frustrated and can't do anything about it. 1 2 3 4 5 6 7 8 2:74
79. After I get home, I spend a lot of time thinking about the problems and frustrations of my job. 1 2 3 4 5 6 7 8 2:75
80. The demands of the Navy are frequently hard to combine with the demands of my family. 1 2 3 4 5 6 7 8 2:76

	1	2	3	4	5	6	7	8	
81. All in all, I am satisfied with the way the Navy treats my family.									2:77
82. All things considered, I am satisfied with my life in the Navy.	1	2	3	4	5	6	7	8	2:78
83. I get a lot of understanding from my spouse when things are not going well on the job.	1	2	3	4	5	6	7	8	2:79
84. My spouse does many things that help me carry out my Navy duties.	1	2	3	4	5	6	7	8	2:80
85. My spouse hardly ever gets involved in activities that are helpful to my Navy career.	1	2	3	4	5	6	7	8	3:6
86. My spouse is not interested in my work.	1	2	3	4	5	6	7	8	3:7

#### SECTION VII: HOUSING

This section contains questions on your housing situation. If you are currently deployed on a ship, please answer the questions in terms of the home where you and your family live when you are not deployed. If you do not maintain a family home (i.e., you live alone), you may skip this section and go to Section VIII which immediately follows.

87. Are you living with your family?	Yes <input type="checkbox"/> 1	3:8
	No <input type="checkbox"/> 2	
	Does Not Apply <input type="checkbox"/> 3	
88. If you are living with your family, where do you live?	Nav. Housing, On Base <input type="checkbox"/> 1	3:9
	Nav. Housing, Off Base <input type="checkbox"/> 2	
	Civilian Housing <input type="checkbox"/> 3	
	Does Not Apply <input type="checkbox"/> 4	
89. What type of dwelling do you live in?	Single family home <input type="checkbox"/> 1	3:10
	Condominium <input type="checkbox"/> 2	
	Apartment <input type="checkbox"/> 3	
	Does Not Apply <input type="checkbox"/> 4	
90. Do you own or rent?	Own <input type="checkbox"/> 1	3:11
	Rent <input type="checkbox"/> 2	
	Does Not Apply <input type="checkbox"/> 3	
91. Besides your immediate family (e.g., spouse and children), what types of others live with you? (Check off as many as apply)	No One Else <input type="checkbox"/> 1	3:12
	Relatives <input type="checkbox"/> 2	3:13
	Friends <input type="checkbox"/> 3	3:14
	Does Not Apply <input type="checkbox"/> 4	3:15
92. How many bedrooms do you have in your house or apartment?	Number of Bedrooms <input type="checkbox"/> 1	3:16-17
	Does Not Apply <input type="checkbox"/> 2	
93. Approximately how much do you spend each month on housing (including rent or mortgage payments and utilities)? (Write in amount)	Amount \$ <input type="checkbox"/> 1	3:18-21
	Does Not Apply <input type="checkbox"/> 2	
94. Are you currently getting a VHA (Variable Housing Allowance)?	Yes <input type="checkbox"/> 1	3:22
	No <input type="checkbox"/> 2	
95. If YES, write in the amount of the VHA.	Amount \$ <input type="checkbox"/> 1	3:23-24
	Does Not Apply <input type="checkbox"/> 2	

96. Do you currently have a VA mortgage loan? Yes ☐ 1 3:27  
No ☐ 2
97. If you do have a VA loan, write in the amount of that loan. Amount \$ ☐ -1 3:28-32  
Does Not Apply ☐ -1
98. Are you and your family currently living overseas? Yes ☐ 1 3:33  
No ☐ 2  
Does Not Apply ☐ 3
99. Do you currently have a COLA (Cost of Living Allotment)? Yes ☐ 1 3:34  
No ☐ 2  
Does Not Apply ☐ 3
100. If you have a COLA, what is the amount per month? Amount \$ ☐ -1 3:35-37  
Does Not Apply ☐ -1
101. How many miles do you have to travel one way to get to work each day? Number of Miles ☐ -1 3:38-39  
Does Not Apply ☐ -1
102. How safe is the neighborhood in which you live? Very Safe ☐ 1 3:40  
Quite Safe ☐ 2  
Somewhat Safe ☐ 3  
Not Safe at All ☐ 4  
Does Not Apply ☐ 5
103. How often do you get together socially with any of your neighbors? Very Frequently ☐ 1 3:41  
Quite Frequently ☐ 2  
Somewhat Frequently ☐ 3  
Not Frequently At All ☐ 4  
Does Not Apply ☐ 5
104. Is Navy housing currently available where you are stationed? Yes ☐ 1 3:42  
No ☐ 2  
Don't Know ☐ 3  
Does Not Apply ☐ 4
105. What do you think of the quality of the available Navy housing? Very High Quality ☐ 1 3:43  
Quite High Quality ☐ 2  
Somewhat High Quality ☐ 3  
Not High Quality at All ☐ 4  
Does Not Apply ☐ 5
106. Are there Navy referral services for civilian housing provided where you are stationed? Yes ☐ 1 3:44  
No ☐ 2  
Don't Know ☐ 3  
Does Not Apply ☐ 4
107. If you have used those referral services, how would you rate the quality of referrals? Very High Quality ☐ 1 3:45  
Quite High Quality ☐ 2  
Somewhat High Quality ☐ 3  
Not High Quality at All ☐ 4  
Does Not Apply ☐ 5
108. All in all, taking everything into account, how satisfied are you with your current housing? Very Satisfied ☐ 1 3:46  
Somewhat Satisfied ☐ 2  
Neither Satisfied Nor Dissatisfied ☐ 3  
Somewhat Dissatisfied ☐ 4  
Very Dissatisfied ☐ 5  
Does Not Apply ☐ 6



### SECTION VIII: TRANSPORTATION

The section below contains questions about transportation facilities and methods used by you and your family.

109. How many motorized transportation vehicles do you have in your family? Number of Vehicles        3:47-48  
 None Motorized ☐  
 Does Not Apply ☐
110. What is the mode of transportation you use most often in commuting to work? 3:49  
 Automobile ☐  
 Motorcycle ☐  
 Public Transportation ☐  
 Other ☐  
 Specify here
111. What is the mode of transportation your spouse uses most often? 3:50  
 Automobile ☐  
 Motorcycle ☐  
 Public Transportation ☐  
 Other ☐  
 Specify here
112. Does your spouse know how to operate an automobile? 3:51  
 Yes ☐ 1  
 No ☐ 2  
 Does Not Apply ☐ 3
113. How much do you spend on transportation per month? (write in the amount) Amount \$        3:52-54  
 Does Not Apply ☐ -1
114. Taking everything into account, are you satisfied with the meeting of your transportation needs? 3:55  
 Very Satisfied ☐ 1  
 Quite Satisfied ☐ 2  
 Somewhat Satisfied ☐ 3  
 Not Satisfied at All ☐ 4  
 Does Not Apply ☐ 5

### SECTION IX: JOB INFORMATION

This section contains questions about your job and career history. Sometimes the questions ask "facts" about your job; other questions ask how you feel about various aspects of your job. Please answer the questions as best you can.

115. How many hours per week do you work on your Navy job? Hours        3:56-57  
 Does Not Apply ☐ -1
116. Do you work on a rotating shift? 3:58  
 Yes ☐ 1  
 No ☐ 2  
 Does Not Apply ☐ 3
117. If you don't work on a rotating shift, what time do you usually start work on your Navy job? Start Time        AM 3:59-62  
       PM  
 Does Not Apply ☐ -1
118. What time do you usually end work on your Navy job? Stop Time        AM 3:63-66  
       PM  
 Does Not Apply ☐ -1
119. How many days per week do you work on your Navy job? Number of Days        3:67  
 Does Not Apply ☐ 8
120. Would you like to work different hours if you could? 3:68  
 Yes ☐ 1  
 No ☐ 2  
 Don't Know ☐ 3  
 Does Not Apply ☐ 4
121. In the Navy work that you do, is most of your time spent supervising others or performing your work skills? 3:69  
 Supervising ☐ 1  
 Performing ☐ 2  
 Does Not Apply ☐ 3
122. In the last seven days, how many hours were you on call/on alert status/on a duty roster? Number of Hours        3:70-71  
 Does Not Apply ☐ -1

In addition to your primary job in the Navy, do you work at jobs outside the Navy?

Yes ☐ 1 3:72  
No ☐ 2

How many hours per week do you work at a job outside the Navy?

Number of Hours 3:73-74  
Don't Work Outside ☐ -1

Is the work outside the Navy regular (a steady second job) or every now and then?

Regular ☐ 1 3:75  
Every Now and Then ☐ 2  
Don't Work Outside ☐ 3

Does your Spouse work for pay outside the home?

Yes ☐ 1 3:76  
No ☐ 2  
Does Not Apply ☐ 3

If your spouse does, what is his/her job?

Clerical ☐ 1 3:77  
Sales ☐ 2  
Service ☐ 3  
Paraprofessional ☐ 4  
Professional ☐ 5  
Spouse Does Not Work ☐ 6  
I Do Not Have a Spouse ☐ 7

How many hours per week does your spouse work for pay?

Hours 3:78-79  
Does Not Apply ☐ -1

In making decisions that are job or career related, whose career is given more importance?

Mine ☐ 1 3:80  
My Spouses ☐ 2  
About Equal ☐ 3  
Does Not Apply ☐ 4

Do you feel that your career is more important than your spouses?

Mine More Important ☐ 1 4:6  
About Equal ☐ 2  
Spouse's More Important ☐ 3  
Does Not Apply ☐ 4

Do you feel your present Navy job is interesting to you?

Very Interesting ☐ 1 4:7  
Somewhat Interesting ☐ 2  
Neither Interesting nor Uninteresting ☐ 3  
Somewhat Uninteresting ☐ 4  
Very Uninteresting ☐ 5

1. Do you feel your Navy job is important to the Navy's overall mission?

Very Important ☐ 1 4:8  
Somewhat Important ☐ 2  
Neither Important nor Unimportant ☐ 3  
Somewhat Unimportant ☐ 4  
Very Unimportant ☐ 5

1-Very Satisfied  
2-Somewhat Satisfied  
3-Neither Satisfied nor Dissatisfied  
4-Somewhat Dissatisfied  
5-Very Dissatisfied  
6-Does Not Apply

13. All in all, how satisfied are you with the sense of accomplishment you get from your job?

4:9

34. All in all, how satisfied are you with the people in your work group?

4:10

35. All in all, how satisfied are you with your supervisor?

4:11

136. All in all, how satisfied are you with your job?

4:12

137. All in all, how satisfied are you with this command, compared to others?

4:13

138. All in all, how satisfied do you feel with the career progress you have made in the Navy, up to now?

4:14

139. How satisfied do you feel with your chances at getting ahead in the Navy in the future?

4:15

## SECTION X: FAMILY FINANCIAL INFORMATION

This section contains questions about the sources of income for you and members of your family. 11 of this information will be kept strictly confidential.

40. What was your own total income (including all allowances and secondary job income) before taxes last year? (Please write in amount) Income \$ \_\_\_\_\_ 4:10-21
41. What was your spouses total income last year before taxes? Spouses Income \$ \_\_\_\_\_ 4:22-27  
Does Not Apply ☐ -1
42. What is the amount of your monthly BAQ (Basic Allowance for Quarters)? BAQ \$ \_\_\_\_\_ 4:24-25
43. What is the amount of your monthly BAS (Basic Allowance for Subsistence)? BAS \$ \_\_\_\_\_ 4:31-33
44. How much income did you earn last year from jobs outside of the Navy? Outside Income \$ \_\_\_\_\_ 4:34-35  
Did Not Work ☐ -1  
Outside
45. What was your dependents' total income last year? No Dependents ☐ 1 4:39-43  
Income \$ \_\_\_\_\_  
Dependent did not work ☐ -1
46. What is the dollar amount of your fixed expenses each month, including rent or mortgage, utilities, loan or charge card payments, school tuition, food, insurance (but excludes entertainment, such as restaurants and going to the movies)? Fixed Expenses \$ \_\_\_\_\_ 4:41-43
47. Not counting any income from an outside job or jobs, would the rest of your total family income meet your monthly expenses? Yes, Fully ☐ 1 4:45  
Yes, Adequately ☐ 2  
Just Barely ☐ 3  
Not at All ☐ 4
48. Not counting any income from an outside job, would the rest of your total family income permit you to live as comfortably as you would like? Very Comfortably ☐ 1 4:51  
Quite Comfortably ☐ 2  
Somewhat Comfortably ☐ 3  
Not Comfortably at All ☐ 4
49. Taking everything into account, how satisfied are you with the pay and financial benefits and allowances (e.g., BAS, BAQ) that you receive from the Navy? Very Satisfied ☐ 1 4:51  
Somewhat Satisfied ☐ 2  
Neither Satisfied ☐ 3  
nor Dissatisfied  
Somewhat Dissatisfied ☐ 4  
Very Dissatisfied ☐ 5

## SECTION XI: SOCIAL SUPPORT

This section contains questions about the sources of support that you have in your work setting. For each question, circle the number of the response that most closely reflects the extent to which you agree or disagree with that statement.

150. The people I work with make it easy to make changes in work routines to make things easier for my family. 1 Strongly Disagree 2 Disagree 3 Slightly Disagree 4 Neither Agree Nor Disagree 5 Slightly Agree 6 Agree 7 Strongly Agree 4:52
151. My supervisor is a sympathetic listener when I have a personal or family problem. 1 2 3 4 5 6 7 4:53

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree	
1. My supervisor gives me some leeway at work if he/she knows I am having a personal or family problem.	1	2	3	4	5	6	7	4:54
2. It's easy to talk over family or personal problems with the people I work with.	1	2	3	4	5	6	7	4:55
3. I can count on the people at work to help me out, if they can, when I have family problems.	1	2	3	4	5	6	7	4:56
4. My supervisor lets me take time off when necessary to do things for my spouse and children.	1	2	3	4	5	6	7	4:57
5. The people I work with help me figure out where to go or who to talk to when I have a personal or family problem.	1	2	3	4	5	6	7	4:58
6. My supervisor often knows who I should see or where I should go to solve personal or family problems.	1	2	3	4	5	6	7	4:59
7. All in all, I am satisfied with the helpfulness of my coworkers.	1	2	3	4	5	6	7	4:60
8. All in all, I am satisfied with the helpfulness of my supervisor.	1	2	3	4	5	6	7	4:61

### SECTION XII: FAMILY SEPARATION

This section contains questions about being separated from your family due to your various duties and assignments in the Navy, such as Temporary Duty Assignments (TDYs) and Deployment. If you have ever been on TDY or been deployed, please check the boxes marked "Does Not Apply".

- Since you've been in the Navy, how much time have you spent away from your family?
 

Hardly Any	<input type="checkbox"/>	1	4:62
Up to 25% of the Time	<input type="checkbox"/>	2	
Between 25% and 50%	<input type="checkbox"/>	3	
Between 50% and 75%	<input type="checkbox"/>	4	
Over 75% of the Time	<input type="checkbox"/>	5	
Does Not Apply	<input type="checkbox"/>	6	
- Since you've been married, how many times have you been deployed? (If none, write in "0"-zero)
 

Number of Times	_____	4:63-64
-----------------	-------	---------
- What has been the average length of deployment that you have had, in months.
 

Average Length	_____	4:65-66
Does Not Apply	<input type="checkbox"/> -1	
- Do you think that your family has experienced some stress due to your being deployed?
 

A Great Deal of Stress	<input type="checkbox"/>	1	4:67
A Good Deal of Stress	<input type="checkbox"/>	2	
Some Stress	<input type="checkbox"/>	3	
Not Much Stress at All	<input type="checkbox"/>	4	
Does Not Apply	<input type="checkbox"/>	5	
- How well has your family coped with the stress due to deployment in your opinion?
 

Very Well	<input type="checkbox"/>	1	4:68
Quite Well	<input type="checkbox"/>	2	
Somewhat Well	<input type="checkbox"/>	3	
Not Well at All	<input type="checkbox"/>	4	
Does Not Apply	<input type="checkbox"/>	5	

165. What resources have you or your family used in dealing with the stress due to deployment? (Check as many as you have used)

Relatives	<input type="checkbox"/>	1	4:69
Civilian Friends and Neighbors	<input type="checkbox"/>	1	4:70
Navy Friends, Neighbors, and co-workers	<input type="checkbox"/>	1	4:71
Formal Civilian Services	<input type="checkbox"/>	1	4:72
Civilian Churches	<input type="checkbox"/>	1	4:73
Navy Family Service Center	<input type="checkbox"/>	1	4:74
Navy Chaplain	<input type="checkbox"/>	1	4:75
Navy Ombudsman	<input type="checkbox"/>	1	4:76
Navy Wives Clubs	<input type="checkbox"/>	1	4:77
Other (Specify Below)	<input type="checkbox"/>	1	4:78

Does Not Apply ☐ 1 4:79

166. Taking everything into account, how satisfied are you with your deployments in the Navy?

Very Satisfied	<input type="checkbox"/>	1	4:80
Somewhat Satisfied	<input type="checkbox"/>	2	
Neither Satisfied nor Dissatisfied	<input type="checkbox"/>	3	
Somewhat Dissatisfied	<input type="checkbox"/>	4	
Very Dissatisfied	<input type="checkbox"/>	5	
Does Not Apply	<input type="checkbox"/>	6	

167. How satisfied are you with the number of deployments you've had?

Very Satisfied	<input type="checkbox"/>	1	5:8
Somewhat Satisfied	<input type="checkbox"/>	2	
Neither Satisfied nor Dissatisfied	<input type="checkbox"/>	3	
Somewhat Dissatisfied	<input type="checkbox"/>	4	
Very Dissatisfied	<input type="checkbox"/>	5	
Does Not Apply	<input type="checkbox"/>	6	

168. Since you've been married, how many TADs (Temporary Duty Assignments) have you had? (If none, write in "0" - zero)

Number of TADs \_\_\_\_\_ 5:7-8

169. What has been the average length of the TADs you've had in days?

Average Length in Days \_\_\_\_\_ 5:9-11  
Does Not Apply ☐ -1

170. Do you think that your family has experienced any stress because of your TADs?

A Great Deal of Stress	<input type="checkbox"/>	1	5:12
A Good Deal of Stress	<input type="checkbox"/>	2	
Some Stress	<input type="checkbox"/>	3	
Not Much Stress at All	<input type="checkbox"/>	4	
Does Not Apply	<input type="checkbox"/>	5	

171. In your opinion, how well has your family coped with the stress due to your TADs?

Very Well	<input type="checkbox"/>	1	5:13
Quite Well	<input type="checkbox"/>	2	
Somewhat Well	<input type="checkbox"/>	3	
Not Well at All	<input type="checkbox"/>	4	
Does Not Apply	<input type="checkbox"/>	5	

172. What resources have you or your family used in coping with the stress due to your TADs? (Check as many as you or you and your family have used.)

Relatives	<input type="checkbox"/>	1	5:14
Civilian Friends and Neighbors	<input type="checkbox"/>	1	5:15
Navy Friends, Neighbors, and co-workers	<input type="checkbox"/>	1	5:16
Formal Civilian Services	<input type="checkbox"/>	1	5:17
Civilian Churches	<input type="checkbox"/>	1	5:18
Navy Family Service Center	<input type="checkbox"/>	1	5:19
Navy Chaplain	<input type="checkbox"/>	1	5:20
Navy Ombudsman	<input type="checkbox"/>	1	5:21
Navy Wives Clubs	<input type="checkbox"/>	1	5:22
Other (Specify Below)	<input type="checkbox"/>	1	5:23

Does Not Apply ☐ 1 5:24

173. All in all how satisfied are you with the number of TADs that you have had?

Very Satisfied	<input type="checkbox"/>	1	5:25
Somewhat Satisfied	<input type="checkbox"/>	2	
Neither Satisfied nor Dissatisfied	<input type="checkbox"/>	3	
Somewhat Dissatisfied	<input type="checkbox"/>	4	
Very Dissatisfied	<input type="checkbox"/>	5	
Does Not Apply	<input type="checkbox"/>	6	

174. Taking everything into account, how satisfied are you with your TDYs, in general?

- Very Satisfied ☐ 1 5:26  
 Somewhat Satisfied ☐ 2  
 Neither Satisfied nor Dissatisfied ☐ 3  
 Somewhat Dissatisfied ☐ 4  
 Very Dissatisfied ☐ 5  
 Does Not Apply ☐ 6

### SECTION XIII: RELOCATION/PCS MOVES

This section contains questions concerning any moves you have made as a Permanent Change of Station (PCS). If you have never had a PCS move, please mark the boxes marked "Does Not Apply".

175. In your current marriage, about how often have you and your family moved since you've been in the Navy?

- Once Every Six Months ☐ 1 5:27  
 Once a Year ☐ 2  
 Once Every 18 Months ☐ 3  
 Once Every Two Years ☐ 4  
 Once Every Three Years ☐ 5  
 Once Every Four Years ☐ 6  
 Once Every Five Years ☐ 7  
 Once Every Six Years ☐ 8  
 Never Moved ☐ 9

176. How satisfied are you with the number of PCS moves you have made?

- Very Satisfied ☐ 1 5:28  
 Somewhat Satisfied ☐ 2  
 Neither Satisfied nor Dissatisfied ☐ 3  
 Somewhat Dissatisfied ☐ 4  
 Very Dissatisfied ☐ 5  
 Does Not Apply ☐ 6

177. How satisfied are you with the rate of PCS moves?

- Very Satisfied ☐ 1 5:29  
 Somewhat Satisfied ☐ 2  
 Neither Satisfied nor Dissatisfied ☐ 3  
 Somewhat Dissatisfied ☐ 4  
 Very Dissatisfied ☐ 5  
 Does Not Apply ☐ 6

The next set of questions applies to your PCS moves in general. For each item, indicate the degree to which it was a serious problem.

- |                                               | 1                        | 2                        | 3                        | 4                        | 5                        |      |
|-----------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------|
| 178. Higher Cost of Living                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5:30 |
| 179. Finding job for spouse.                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5:31 |
| 180. Changing schools for children            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5:32 |
| 181. Continuing education for spouse.         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5:33 |
| 182. Finding permanent housing.               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5:34 |
| 183. Children adjusting to new environment.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5:35 |
| 184. Spouse adjusting to new environment.     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5:36 |
| 185. Yourself adjusting to your new job.      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5:37 |
| 186. Yourself adjusting to your new location. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5:38 |

1 Serious Problem  
 2 Somewhat of a Problem  
 3 Slight Problem  
 4 No Problem  
 5 Does Not Apply

187. When you moved to your current location, how much money did you spend on moving expenses for which you were not or will not be reimbursed? Amount \$ 5:39-43  
Does Not Apply ☐ -1
188. All in all how satisfied are you with your PCS moves?  
Very Satisfied ☐ 1 5:44  
Somewhat Satisfied ☐ 2  
Neither Satisfied nor Dissatisfied ☐ 3  
Somewhat Dissatisfied ☐ 4  
Very Dissatisfied ☐ 5  
Does Not Apply ☐ 6
189. Generally, were you contacted by a sponsor from your new command prior to your PCS moves?  
Always ☐ 1 5:45  
Usually ☐ 2  
Sometimes ☐ 3  
Rarely ☐ 4  
Never ☐ 5  
Does Not Apply ☐ 6
190. Did you find the assistance of the sponsor useful in helping you and your family adjust to your new duty station?  
Very Helpful ☐ 1 5:46  
Somewhat Helpful ☐ 2  
Neither Helpful nor a Hindrance ☐ 3  
Somewhat of a Hindrance ☐ 4  
Very Much of a Hindrance ☐ 5  
Does Not Apply ☐ 6

#### SECTION XIV: NAVY LIFE AND SERVICES

This section contains items about various aspects of Navy life. Please indicate how satisfied you are with these aspects of Navy life.

- |                                             | Very Satisfied | Somewhat Satisfied | Neither Satisfied nor Dissatisfied | Somewhat Dissatisfied | Very Dissatisfied | Does Not Apply |      |
|---------------------------------------------|----------------|--------------------|------------------------------------|-----------------------|-------------------|----------------|------|
| 191. Overall Treatment by the Navy          | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:47 |
| 192. Career Advancement                     | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:48 |
| 193. Training Opportunities                 | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:49 |
| 194. Availability of Child Care             | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:50 |
| 195. Adequacy of Child Care                 | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:51 |
| 196. Cost of Child Care                     | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:52 |
| 197. Total Financial Compensation           | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:53 |
| 198. Navy Rules and Regulations             | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:54 |
| 199. Retirement Benefits                    | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:55 |
| 200. Medical Care for Self                  | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:56 |
| 201. Medical Care for Dependents and Family | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:57 |
| 202. Navy Exchanges                         | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:58 |
| 203. Navy Commissaries                      | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:59 |
| 204. Availability of Housing                | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:60 |
| 205. Quality of Housing                     | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:61 |
| 206. Rental Care for Self                   | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:62 |
| 207. Rental Care for Family                 | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:63 |
| 208. Treatment by Supervisors               | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:64 |
| 209. Recreation Facilities                  | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:65 |
| 210. Legal Assistance                       | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:66 |
| 211. Job Security                           | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:67 |
| 212. Chaplain Services                      | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:68 |
| 213. Family Service Centers                 | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:69 |
| 214. Treatment by Civilians                 | 1              | 2                  | 3                                  | 4                     | 5                 | 6              | 5:70 |

# SECTION IV: RETENTION DECISION

This section contains questions about your decision to stay in or leave the Navy. After the first few questions about your future plans, you are asked to rate the extent to which a particular aspect of your Navy experience was important in your decision.

215. Right now do you plan to stay or leave the Navy at the end of your current term or MSR?

Stay ☐ 1 5:71  
Undecided ☐ 2  
Leave ☐ 3

216. If you have decided to either stay or leave, how long ago, in months did you make that decision? Please indicate to the nearest whole month.

Number of Months  5:72-73  
Does Not Apply ☐ -1

## RATE THE IMPORTANCE OF THE FACTORS BELOW

	1	2	3	4	5	6	7	
	Extremely Important for Staying	Quite Important for Staying	Somewhat Important for Staying	Not a Factor in my Decision	Somewhat Important for Leaving	Quite Important for Leaving	Extremely Important for Leaving	
217. Spouse's Attitude Toward the Navy	1	2	3	4	5	6	7	5:74
218. Spouse's own career/job	1	2	3	4	5	6	7	5:75
219. Total Family Income	1	2	3	4	5	6	7	5:76
220. Bonuses for Reenlistment	1	2	3	4	5	6	7	6:6
221. Financial Allowances and Benefits (BAS, BAQ, etc.)	1	2	3	4	5	6	7	6:7
222. Promises of Training	1	2	3	4	5	6	7	6:8
223. Promises of Assignment	1	2	3	4	5	6	7	6:9
224. Choice of Guaranteed Duty Assignment	1	2	3	4	5	6	7	6:10
225. Availability of Housing	1	2	3	4	5	6	7	6:11
226. Cost of Housing	1	2	3	4	5	6	7	6:12
227. Quality of Available Housing	1	2	3	4	5	6	7	6:13
228. Overall Satisfaction with Navy Job	1	2	3	4	5	6	7	6:14
229. Job Regulations	1	2	3	4	5	6	7	6:15
230. Other Navy Rules and Regulations	1	2	3	4	5	6	7	6:16
231. Challenge of Navy Job	1	2	3	4	5	6	7	6:17
232. Use of Personal Talents and Skills in Navy Job	1	2	3	4	5	6	7	6:18
233. Potential Civilian Job Benefits	1	2	3	4	5	6	7	6:19
234. Potential Civilian Job Opportunities	1	2	3	4	5	6	7	6:20
235. Satisfaction with Availability of Transportation	1	2	3	4	5	6	7	6:21
236. Satisfaction with Cost of Transportation	1	2	3	4	5	6	7	6:22
237. Satisfaction with Quality of Transportation	1	2	3	4	5	6	7	6:23
238. Overall Satisfaction with Social Support	1	2	3	4	5	6	7	6:24
239. Satisfaction with Support from Job Supervisors	1	2	3	4	5	6	7	6:25
240. Satisfaction with Support from Job-Coworkers	1	2	3	4	5	6	7	6:26
241. Satisfaction with Support from Relatives	1	2	3	4	5	6	7	6:27
242. Satisfaction with Support from Friends	1	2	3	4	5	6	7	6:28
243. Overall Time Spent with Family	1	2	3	4	5	6	7	6:29
244. Family Separations due to Deployment	1	2	3	4	5	6	7	6:30
245. Family Separations due to TAD and Other Reasons	1	2	3	4	5	6	7	6:31
246. Relocation (PCS) Moves	1	2	3	4	5	6	7	6:32
247. Reimbursement for PCS Moves	1	2	3	4	5	6	7	6:33
248. Frequency of PCS Moves	1	2	3	4	5	6	7	6:34



	1	2	3	4	5	6	7	
249. Stress from PCS Moves								6:35
250. Availability of Navy Family Services	1	2	3	4	5	6	7	6:36
251. Quality of Navy Family Services	1	2	3	4	5	6	7	6:37
252. Cost of Medical Care	1	2	3	4	5	6	7	6:38
253. Availability of Medical Care	1	2	3	4	5	6	7	6:39
254. Quality of Medical Care	1	2	3	4	5	6	7	6:40
255. Cost of Child Care	1	2	3	4	5	6	7	6:41
256. Availability of Child Care	1	2	3	4	5	6	7	6:42
257. Quality of Child Care	1	2	3	4	5	6	7	6:43
258. Childrens Schooling	1	2	3	4	5	6	7	6:44
259. Cost of Counseling Services	1	2	3	4	5	6	7	6:45
260. Availability of Counseling Services	1	2	3	4	5	6	7	6:46
261. Quality of Counseling Services	1	2	3	4	5	6	7	6:47

OF THE ITEMS 217 THROUGH 261, WE WOULD LIKE YOU TO GO BACK AND CIRCLE THE NUMBERS OF THE 5 ITEMS THAT WERE THE MOST IMPORTANT REASONS FOR LEAVING OR STAYING.

If there are other reasons important to your decision not listed above, please list them here.

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6:48-50  
6:51-53  
6:54-56  
6:57-59  
6:60-62

#### SECTION XVI: RETENTION FACTORS FOR THOSE WHO ARE UNDECIDED OR HAVE DECIDED TO LEAVE

If you have decided to leave the Navy at the end of the current term or MSR, or if you are undecided, please answer the questions in this section. If you have decided to stay, please skip these questions and go on to Section XVII.

For each item below, indicate the extent to which the change in those aspects of Navy life might have made you more likely to stay in the Navy.

262. If the quality of child care were improved?  
263. If the cost of child care were reduced?

1 2 3 4 5  
Extremely More Likely to Stay  
Much More Likely to Stay  
Somewhat More Likely to Stay  
Slight ly More Likely to Stay  
No Effect

6:63  
6:64

Extremely More Likely to Stay  
 Much More Likely to Stay  
 Somewhat More Likely to Stay  
 Slightly More Likely to Stay  
 No Effect

264. If the availability of child care were increased?	1					6:65
265. If family services were increased?	1	2	3	4	5	6:66
266. If better schools for children were available?	1	2	3	4	5	6:67
267. If the availability of housing were increased?	1	2	3	4	5	6:68
268. If the cost of housing were reduced?	1	2	3	4	5	6:69
269. If the quality of housing were improved?	1	2	3	4	5	6:70
270. If transportation services were improved?	1	2	3	4	5	6:71
271. If bonuses for reenlistment were increased?	1	2	3	4	5	6:72
272. If the BAS and BAQ were increased?	1	2	3	4	5	6:73
273. If the basic pay were increased?	1	2	3	4	5	6:74
274. If there were a greater range of special allowances?	1	2	3	4	5	6:75
275. If the <u>number</u> of job and Navy regulations were reduced?	1	2	3	4	5	6:76
276. If the <u>type</u> of job and Navy regulations were changed?	1	2	3	4	5	6:77
277. If you received more support from your job supervisors?	1	2	3	4	5	6:78
278. If you received more support from your co-workers?	1	2	3	4	5	6:79
279. If you could work a regular 40 hour, "9 to 5" work week?	1	2	3	4	5	6:80
280. If the <u>number</u> of deployments were decreased?	1	2	3	4	5	7:6
281. If the <u>length</u> of deployments were decreased?	1	2	3	4	5	7:7
282. If the <u>number</u> of TADs were decreased?	1	2	3	4	5	7:8
283. If the length of TADs were decreased?	1	2	3	4	5	7:9
284. If PCS moves were fully reimbursed?	1	2	3	4	5	7:10
285. If the Navy provided job referrals for your spouse in PCS moves?	1	2	3	4	5	7:11
286. If the Navy decreased the <u>frequency</u> of PCS moves?	1	2	3	4	5	7:12
287. If the Navy decreased the <u>number</u> of PCS moves?	1	2	3	4	5	7:13
288. If the Navy assigned you to only one permanent home base during your Navy career?	1	2	3	4	5	7:14
289. If the cost of medical care were reduced?	1	2	3	4	5	7:15
290. If the quality of medical care were increased?	1	2	3	4	5	7:16
291. If you were given the choice to use either Navy or Civilian medical care for you and your family?	1	2	3	4	5	7:17
292. If the Navy provided a greater range of famy services?	1	2	3	4	5	7:18

293. If you are undecided, have you been offered a guaranteed assignment?	Yes <input type="checkbox"/> 1	7:19
	No <input type="checkbox"/> 2	
	Does Not Apply <input type="checkbox"/> 3	
294. If you are undecided and you have not been offered a guaranteed assignment, how much more likely would you be to reenlist, if you were offered one?	Extremely More Likely <input type="checkbox"/> 1	7:20
	Much More Likely <input type="checkbox"/> 2	
	Somewhat More Likely <input type="checkbox"/> 3	
	Slightly More Likely <input type="checkbox"/> 4	
	Not Likely <input type="checkbox"/> 5	
	Does Not Apply <input type="checkbox"/> 6	
295. Have you been offered a bonus to reenlist?	Yes <input type="checkbox"/> 1	7:21
	No <input type="checkbox"/> 2	
	Does Not Apply <input type="checkbox"/> 3	

296. What is the amount of bonus you have been offered?

Amount \$ 7:22-26  
Does Not Apply ☐ -1

297. How much more likely would you be to reenlist, if your bonus were increased?

Extremely More Likely ☐ 1 7:27  
Much More Likely ☐ 2  
Somewhat More Likely ☐ 3  
Slightly More Likely ☐ 4  
Not Likely ☐ 5  
Does Not Apply ☐ 6

298. If you have not been offered a bonus, how much more likely would you be to enlist if you had been offered one?

Extremely More Likely ☐ 1 7:28  
Much More Likely ☐ 2  
Somewhat More Likely ☐ 3  
Slightly More Likely ☐ 4  
Not Likely ☐ 5  
Does Not Apply ☐ 6

SECTION XVII: ALL RESPONDENTS: YOUR OPINION  
ON IMPROVEMENTS NEEDED

For each item below, please indicate the extent to which these improvements are needed in these aspects of Navy life.

	1	2	3	4	5	6	
	Needs Great Deal of Improvement						
	Needs a Good Deal of Improvement						
	Needs Some Improvement						
	Needs Slight Improvement						
	No Improvement Needed						
	Does Not Apply						
299. Quality of Child Care	1	2	3	4	5	6	7:29
300. Cost of Child Care	1	2	3	4	5	6	7:30
301. Availability of Child Care	1	2	3	4	5	6	7:31
302. Extent of Family Services	1	2	3	4	5	6	7:32
303. Availability of Housing	1	2	3	4	5	6	7:33
304. Navy Support or Allowances for the Cost of Housing	1	2	3	4	5	6	7:34
305. Quality of Housing	1	2	3	4	5	6	7:35
306. Transportation Services	1	2	3	4	5	6	7:36
307. BAS and BAQ	1	2	3	4	5	6	7:37
308. Basic Pay	1	2	3	4	5	6	7:38
309. Special Allowances	1	2	3	4	5	6	7:39
310. Job Hours	1	2	3	4	5	6	7:40
311. Job Regulations	1	2	3	4	5	6	7:41
312. Supervisor Support	1	2	3	4	5	6	7:42
313. Co-worker Support	1	2	3	4	5	6	7:43
314. Number of Deployments	1	2	3	4	5	6	7:44
315. Length of Deployments	1	2	3	4	5	6	7:45
316. Number of TDYs	1	2	3	4	5	6	7:46
317. Length of TDYs	1	2	3	4	5	6	7:47
318. Reimbursement Policies for PCS Moves	1	2	3	4	5	6	7:48
319. Housing Referral Services	1	2	3	4	5	6	7:49
320. Job Referral Services	1	2	3	4	5	6	7:50

- 321. Frequency of PCS moves
- 322. Cost of medical care
- 323. Quality of medical care
- 324. Choice of medical services
- 325. Range of family services
- 326. Spouse support services

	1	2	3	4	5	6	
	1	2	3	4	5	6	7:51
	1	2	3	4	5	6	7:52
	1	2	3	4	5	6	7:53
	1	2	3	4	5	6	7:54
	1	2	3	4	5	6	7:55
	1	2	3	4	5	6	7:56

# SECTION XVIII: DUAL MILITARY CAREER COUPLES

If your spouse is in the military, please answer the questions in this section. If your spouse is not currently in any branch of the Armed Forces, please skip this section.

Dual military career couples may have problems or experiences in the Navy that are unique to them. Please answer these questions as candidly as you can. Please do not discuss your answers with your spouse or compare your answers with those of your spouse until you have finished the entire survey.

- |      |                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                    |      |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 327. | If the Navy guaranteed that both you and your spouse would be assigned in the same geographic location, how much more likely would you be to remain in the Navy?     | Extremely More Likely <input type="checkbox"/> 1<br>Much More Likely <input type="checkbox"/> 2<br>Somewhat More Likely <input type="checkbox"/> 3<br>A Little More Likely <input type="checkbox"/> 4<br>Not Likely at All <input type="checkbox"/> 5<br>Does Not Apply <input type="checkbox"/> 6 | 8:6  |
| 328. | If the Navy changed its policy to allow both of you to be stationed in the same command, how much more likely would you be to remain in the Navy?                    | Extremely More Likely <input type="checkbox"/> 1<br>Much More Likely <input type="checkbox"/> 2<br>Somewhat More Likely <input type="checkbox"/> 3<br>A Little More Likely <input type="checkbox"/> 4<br>Not Likely at All <input type="checkbox"/> 5<br>Does Not Apply <input type="checkbox"/> 6 | 8:7  |
| 329. | If the Navy provided 24-hour child care, how much more likely would you be to remain in the Navy?                                                                    | Extremely More Likely <input type="checkbox"/> 1<br>Much More Likely <input type="checkbox"/> 2<br>Somewhat More Likely <input type="checkbox"/> 3<br>A Little More Likely <input type="checkbox"/> 4<br>Not Likely at All <input type="checkbox"/> 5<br>Does Not Apply <input type="checkbox"/> 6 | 8:8  |
| 330. | If the Navy extended CHAMPUS coverage for marital counseling for dual career couples in the private sector, how much more likely would you be to remain in the Navy? | Extremely More Likely <input type="checkbox"/> 1<br>Much More Likely <input type="checkbox"/> 2<br>Somewhat More Likely <input type="checkbox"/> 3<br>A Little More Likely <input type="checkbox"/> 4<br>Not Likely at All <input type="checkbox"/> 5<br>Does Not Apply <input type="checkbox"/> 6 | 8:9  |
| 331. | If you are childless, is it due to difficulties in combining Navy life with parenthood?                                                                              | Yes <input type="checkbox"/> 1<br>Uncertain <input type="checkbox"/> 2<br>No <input type="checkbox"/> 3<br>Does Not Apply <input type="checkbox"/> 4                                                                                                                                               | 8:10 |
| 332. | Do you think that the Navy should take dual career spouses into account by deploying each at different times?                                                        | Yes <input type="checkbox"/> 1<br>Uncertain <input type="checkbox"/> 2<br>No <input type="checkbox"/> 3<br>Does Not Apply <input type="checkbox"/> 4                                                                                                                                               | 8:11 |
| 333. | Do you think that the Navy should take dual career spouses into account by having a greater lag between deployments?                                                 | Yes <input type="checkbox"/> 1<br>Uncertain <input type="checkbox"/> 2<br>No <input type="checkbox"/> 3<br>Does Not Apply <input type="checkbox"/> 4                                                                                                                                               | 8:12 |
| 334. | Have your deployments ever been staggered because of your children?                                                                                                  | Yes <input type="checkbox"/> 1<br>No <input type="checkbox"/> 2<br>Does Not Apply, No Children <input type="checkbox"/> 3                                                                                                                                                                          | 8:13 |
| 335. | If one of you were to leave the Navy, who would be more likely to leave?                                                                                             | Self <input type="checkbox"/> 1<br>Spouse <input type="checkbox"/> 2<br>Both <input type="checkbox"/> 3<br>Neither <input type="checkbox"/> 4                                                                                                                                                      | 8:14 |
| 336. | To what extent does your spouse support your career decisions?                                                                                                       | Very Much <input type="checkbox"/> 1<br>Somewhat <input type="checkbox"/> 2<br>A Little <input type="checkbox"/> 3<br>Not At All <input type="checkbox"/> 4                                                                                                                                        | 8:15 |
| 337. | To what extent does your spouse support your household decisions?                                                                                                    | Very Much <input type="checkbox"/> 1<br>Somewhat <input type="checkbox"/> 2<br>A Little <input type="checkbox"/> 3<br>Not at All <input type="checkbox"/> 4                                                                                                                                        | 8:16 |
| 338. | In making career decisions, whose career is given precedence?                                                                                                        | Self <input type="checkbox"/> 1<br>Spouse <input type="checkbox"/> 2<br>Both about Equally <input type="checkbox"/> 3                                                                                                                                                                              | 8:17 |

APPENDIX B. Summary of Initial Survey and Proposed  
Follow-Up Questionnaire

# SUMMARY OF THE FIRST SURVEY ON FAMILY FACTORS AND RETENTION

## BACKGROUND

The first survey was distributed to about 5000 married Navy personnel in July of . The survey was comprehensive, containing over 300 questions about the many aspects of Navy life and about the decision to stay or leave the Navy.

In the length of the survey and the amount of time necessary to fill it out, we were extremely gratified to get the response we did. Over 1500 people -- one out of three -- took the time to fill it out and return it to us. We wish to say to all of you "Thank You".

## WHAT DID YOU TELL US?

The survey results are so rich that the findings are very difficult to summarize briefly. In fact, we will be analyzing the data and issuing reports for some time to come. Basically, you indicated that all of these factors are critical to the retention of Navy personnel:

- o opinion and support of the spouse
- o satisfaction with family life in the Navy
- o satisfaction with the Navy job

We also looked at how people intending to leave the Navy differed from those intending to stay. Those intending to leave were more dissatisfied with more aspects of life than those intending to stay. But many persons, whether they were going to stay in the Navy or not, were dissatisfied with dental and medical care for the family, pay and benefits, and the availability and quality of housing. This shows that there are still improvements that can be made to enhance the overall quality of life and available services for Navy personnel.

We also found that a number of things could be done to increase the retention of Navy personnel. These include:

- o Decreasing deployment length and number
- o Increasing pay and other financial benefits
- o Reducing the number of work hours
- o Providing job referrals for spouses, especially during PCS moves.

There are numerous other findings that are described in the final report for the first survey.

## HOW WILL THE FINDINGS BE USED?

We realize that research is made more valuable when the findings are used by policy makers in making decisions and by service providers within the Navy. The findings from the first survey are being communicated to Navy policy makers at all levels. This research has also become part of the Navy-wide initiative to improve the overall quality of life for Navy families. This initiative will grow in the coming years as the Family Service Centers become operational around the world. It will grow as the Family Service Centers begin to offer more services to Navy personnel and their families.

This is a very brief description of the first survey's results. If you would like a longer summary of the findings, please fill out and send in the enclosed postcard. And thank you again...THANK YOU!!!

# NAVY FAMILIES AND RETENTION

## FOLLOW-UP QUESTIONNAIRE

SPONSORED BY: NAVY FAMILY PROGRAM OFFICE OP-152/6      REPORT CONTROL SYMBOL: OPNAV

### PRIVACY ACT STATEMENT

The authority to request the information contained on the questionnaire is 5 U.S.C. 301, Departmental Regulations. The information will be used by the Office of Naval Research, the Family Support Program Division (OP-152/6), and by the Westinghouse Public Applied Systems to determine the extent to which family related factors play a role in the decision to stay or leave the Navy and to assess the actual retention behavior of individuals who participated in the original survey conducted in the summer of 1981. Participation in this survey/research is purely voluntary.

### GENERAL INSTRUCTIONS

Please answer the questions as frankly as you can. **THIS IS NOT A TEST**—There are no right or wrong answers. We only want to know how YOU think and feel. However, you should answer every question. Your answers will be completely **CONFIDENTIAL**. No one in the Navy will ever see your individual answers.

Your answers will be very helpful to our research. To help insure your privacy, we prefer not to have your name on the questionnaire. We have assigned you an identification number which is written on the upper right hand corner of the survey form. This identification number will not be used to identify your answers. The completed questionnaires will be processed by automated equipment which will summarize the answers in statistical form. Your individual responses will remain strictly confidential since they will be combined with those of many other persons.

Your participation in this survey is entirely voluntary. We appreciate your cooperation and hope you enjoy the survey.



## JOB AND FAMILY CHARACTERISTICS

This section contains questions about your duty and fleet assignments and some questions about your family. Some of the same questions appeared in the first survey. We are asking them again to see if there were any changes since the last survey. Additionally, we want to know how they affected your retention decision.

**1** To which type of duty are you assigned?

Surface Force ☐  
Submarine Force ☐  
Naval Air ☐  
Other ☐

**2** What is your current assignment?

Pacific Fleet ☐  
Atlantic Fleet ☐  
Ashore in U.S. ☐  
Ashore Overseas ☐

**3** What is your current marital status?

Single, Never Married ☐  
Currently Married ☐  
Currently Divorced  
or Separated ☐  
Currently Widowed ☐

**4** When did you marry your current spouse?  
Please write in the year and month:

\_\_\_\_ Year      \_\_\_\_ Month

**5** Does your current spouse have any military experience?

Yes ☐ Does Not  
No ☐ Apply ☐

**6** If yes, which branch?

Currently in Navy ☐  
Currently in Other  
Armed Services Branch ☐  
Formerly in Navy ☐  
Formerly in Other  
Armed Services Branch ☐  
Does Not Apply ☐

**7** If your spouse is not now in the military, does he/she currently have a civilian job?

Yes ☐ Does Not  
No ☐ Apply ☐

**8** Is your family currently living where you are stationed?

Yes ☐ Does Not  
No ☐ Apply ☐

Did your spouse support your most recent decision to stay in the Navy?

Yes ☐ Don't Know ☐  
No ☐ Does Not Apply ☐

How important was your spouse's opinion to you in deciding whether or not to stay in the Navy?

Very Important ☐  
Quite Important ☐  
Somewhat Important ☐  
Not Important At All ☐  
Does Not Apply ☐

1 Did your spouse try to influence your decision to stay or leave the Navy?

Yes ☐ Don't Know ☐  
No ☐ Does Not Apply ☐

## FACTORS RELATED TO RETENTION

The previous survey asked you to look at various factors which might have related to your intention at that time of either staying or leaving the Navy. The present questions are concerned with similar factors which might have related to the decision that you subsequently made to stay in the Navy.

12 How satisfied are you with your most recent decision to stay in the Navy?

Very Satisfied ☐  
Quite Satisfied ☐  
Somewhat Satisfied ☐  
Not Satisfied ☐

13 At the time of your most recent retention decision, how seriously did you consider a civilian job when deciding to stay in the Navy?

Very Seriously ☐  
Quite Seriously ☐  
Somewhat Seriously ☐  
Not Seriously ☐

14 Did you feel that you had a good opportunity to obtain a civilian job that was equal to or more satisfying than your Navy job?

Excellent Opportunity ☐  
Very Good Opportunity ☐  
Fair Opportunity ☐  
No Opportunity ☐  
Did Not Consider ☐

**15** How likely is it that you would have left the Navy if the civilian economy had been better (e.g., more employers seeking employees) and more jobs available?

Very Likely ☐  
 Quite Likely ☐  
 Somewhat Likely ☐  
 Not Likely ☐

**16** At the time of your most recent retention decision, what role did the following factors play? That is, did they play a negative role (a disincentive for staying), a neutral role (no effect or not applicable), or a positive role (an incentive for staying). Circle one response for each of the following factors:

	<u>Nega-</u> <u>tive</u>	<u>Neu-</u> <u>tral</u>	<u>Posi-</u> <u>tive</u>
a. Satisfaction with Navy Job _____	<	-	>
b. Spouse's Attitude Toward Navy _____	<	-	>
c. Choice of Guaranteed Duty Assignment _____	<	-	>
d. Total Family Income _____	<	-	>
e. Use of Personal Skills in Navy Job _____	<	-	>
f. Cost of Medical Care _____	<	-	>
g. Challenge of Navy Job _____	<	-	>
h. Overall Time Spent with Family _____	<	-	>
i. Availability of Medical Care _____	<	-	>
j. Bonuses for Re-enlistment _____	<	-	>
k. Family Separation Due to Deployment _____	<	-	>
l. Financial Allowances and Benefits _____	<	-	>
m. Promises of Assignment _____	<	-	>
n. Military vs. potential civilian job opportunities	<	-	>
o. Military vs. potential civilian job benefits _____	<	-	>
p. Navy Rules and Regulations _____	<	-	>
q. Promises of Training _____	<	-	>
r. Frequency of PCS Moves _____	<	-	>
s. Quality of Housing _____	<	-	>
t. Social Support _____	<	-	>
u. Support from Co-workers and Friends _____	<	-	>
v. Availability and Quality of Navy Family Services			
w. Child Care Availability _____	<	-	>
x. Schooling for Children _____	<	-	>

**17** Of the items listed above, please go back and circle the letter (a to x) of the five positive factors that were your most important reasons for staying.

## FAMILY SERVICE CENTERS

The Navy has begun establishing Family Service Centers (FSCs) at installations around the world. This section contains some questions about your experiences with these centers.

**18** Are you aware of the Navy's program to establish and maintain Family Service Centers (FSCs)?

Yes ☐  
No ☐

**19** Is there such a Center at your current installation?

Yes ☐ Don't Know ☐  
No ☐

**20** Have you or members of your family ever used a Family Service Center (either at your present installation or elsewhere)?

Yes ☐ Does Not Apply ☐  
No ☐

**21** If yes, for what purposes did you or your family members use the Center? Check all that apply:

- |                                                                                  |                                                                        |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------|
| a. Information and Referral <input type="checkbox"/>                             | i. Education <input type="checkbox"/>                                  |
| b. Counseling - Marriage/ Individual/Families/ Children <input type="checkbox"/> | j. Consumer Education <input type="checkbox"/>                         |
| c. General Family Assistance <input type="checkbox"/>                            | k. Legal Assistance <input type="checkbox"/>                           |
| d. Newcomer Orientation <input type="checkbox"/>                                 | l. Spouse Employment Referral <input type="checkbox"/>                 |
| e. Retirement Affairs <input type="checkbox"/>                                   | m. Assistance or Counseling During Deployment <input type="checkbox"/> |
| f. Crisis Intervention <input type="checkbox"/>                                  | n. Does Not Apply <input type="checkbox"/>                             |
| g. Relocation Assistance <input type="checkbox"/>                                | o. Other (Please Specify) <input type="checkbox"/>                     |
| h. Financial Counseling <input type="checkbox"/>                                 |                                                                        |

**22** If you have used such services, did you have any problems in gaining access to the Center and its services?

Yes ☐ Does Not Apply ☐  
No ☐

**23** If you have used such services, what is your overall assessment of the quality of the services that you received?

Excellent ☐  
Very Good ☐  
Good ☐  
Fair ☐  
Poor ☐  
Does Not Apply ☐

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**24** Are there any comments you would like to make about family factors or other factors that affect retention in the Navy? If so, please comment below:

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**25** Please read the following notes and provide the requested information on the enclosed postcard, if appropriate. Mail the postcard separately--do not return it with the questionnaire.

**NOTE 1: COPY OF FIRST SURVEY SUMMARY**

To obtain a copy of the first survey summary (24 pages), fill in your name and mailing address on the enclosed postcard.

**NOTE 2: FAMILY SERVICE CENTERS**

We would like to hold a limited number of telephone discussions about Family Service Centers with officers and enlisted personnel who have used these Centers. If you have had any experiences with these Centers which you would like to discuss, please so indicate on the enclosed postcard.

A self-addressed stamped envelope is enclosed for your use in returning the survey questionnaire. Please return the completed questionnaire as soon as possible.

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